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ABSTRACT

This report, third in a series based on data resulting from the World Fertility Survey (WFS), examines the extent of knowledge and use of contraception in 20 developing countries. The data analyzed in this report indicate that in 19 of the 20 countries (the exception being Nepal), three-quarters or more of the women who are or have been married know about contraception. Knowledge of modern contraceptive methods (i.e., the pill, condom, intrauterine device (IUD), injection, diaphragm, jelly, foam, tablet, tampon, sponge, and cream) is more common than knowledge of traditional methods (i.e., abstinence, rhythm, withdrawal, douche, and folk methods). Modern methods are more frequently used than traditional methods among current users. The three methods most commonly used, in order of popularity, are the pill, the IUD, and sterilization. There exists a curvilinear relationship between the extent of current use and age of the women: the percentage of current users is lower among younger and older women and reaches its highest level in the mid-range of the reproductive years. A strong, but not always consistent relationship exists between parity and contraceptive use. In general, use of contraception tends to increase with number of living children, and there exists a positive linear relationship between levels of educational attainment and contraceptive use. Similar relationships are also found between women's paid employment and contraceptive use, and between urban residence and contraceptive use. (Author/MP)

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Knowledge and Use of Contraception in Twenty Developing Countries

By Maria Mamlouk

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Summary of Findings

This report examines the extent of knowledge and use of contraceptives in 20 developing countries. The data reviewed provide evidence of the rapidity with which knowledge and use of modern contraceptives have spread since the 1960s. On the basis of the rapid rise in knowledge and use of contraception in recent years, it can be anticipated that use levels should continue to increase in the years ahead.

In brief, the data analyzed in this report indicate that:

- In 19 of the 20 countries, three-quarters or more of the ever-married women know about contraception. (The exception being Nepal.) Knowledge of modern contraceptive methods (i.e., the pill, condom, IUD, injection, diaphragm, jelly, foam, tablet, tampon, sponge, and cream), especially the pill, is more common than knowledge of traditional methods (i.e., abstinence, rhythm, withdrawal, douche, and folk methods).
- Modern methods are more frequently used than traditional methods among current users. The three methods most commonly used, in order of popularity, are the pill, the IUD, and sterilization.
- There exists a curvilinear relationship between the extent of current use and age of the women: the percentage of current users is lower among younger and older women and reaches its highest level in the mid-range of the reproductive years.
- A strong, but not always consistent, relationship exists between parity and contraceptive use. In general, use of contraception tends to increase with number of living children.
- There exists a positive linear relationship between levels of educational attainment and contraceptive use. Similar relationships are also found between women's paid employment and contraceptive use, and between urban residence and contraceptive use.

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Knowledge and Use of Contraception in Twenty Developing Countries

February 1982
Maria Mamlouk

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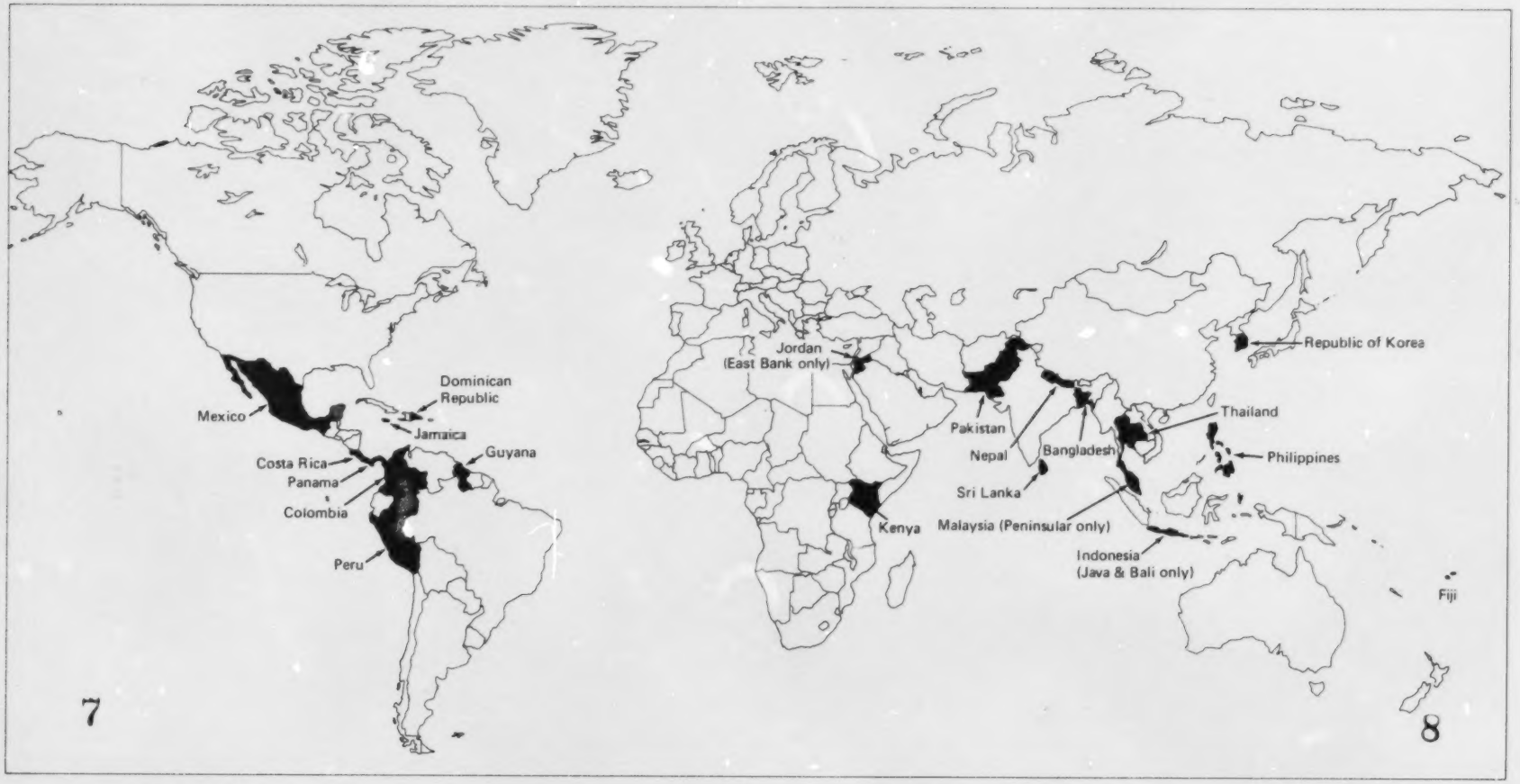
Preface

Knowledge and Use of Contraception in Twenty Developing Countries is the third report in a series based on data resulting from the World Fertility Survey (WFS). Begun in 1972 under the auspices of the International Statistical Institute and with major support from the International Union for the Scientific Study of Population, the United Nations' Fund for Population Activities and the United States Agency for International Development, the World Fertility Survey is an international research effort to encourage and assist countries in collecting and analyzing basic demographic data and more specific data on national patterns of fertility behavior.

The data are collected by trained interviewers, almost all women, who administer the WFS "core questionnaire" modified and translated for local use. An average survey involves detailed interviews with about 5,000 women. Tabulation of survey results has been standardized, facilitating international comparisons.

The first survey was conducted in Fiji in 1974. Within the next few years over 40 developing countries are expected to complete the survey and publish a First Country Report which provides some analysis of the data and a large number of tabulations. This Population Reference Bureau series is based primarily on the data presented in these First Country Reports and other WFS publications.

Figure 1. World Fertility Survey Countries Included in This Report



Introduction

Contraception, the conscious effort by people to limit the probability of pregnancy, is an important determinant of fertility in most developed and many developing countries around the world. Contraceptive methods range from sexual abstinence to surgical sterilization. Couples may rely on modern contraceptives—such as the intrauterine device (IUD) or the oral contraceptive pill—that interfere at some point in the biological chain leading from ovulation and intercourse to the implantation and growth of the fertilized ovum. Or, they may try more traditional contraceptive practices, perhaps as old as humanity itself, such as withdrawal, or *coitus interruptus*. Prescriptions for vaginal pastes and tampons using honey, oil, camel dung, and other substances can be traced back to ancient Egypt. The condom, in its more primitive form, has been known for several centuries.

Except for modern intrauterine devices, orals, and other hormone-based chemical contraceptives, all current contraceptive methods have been in use since the beginning of the twentieth century. Following the Second World War, advances in reproductive knowledge and the growing acceptance of contraception contributed to a climate that produced important technological breakthroughs in efficient and convenient contraceptive methods. The pill was developed during the 1950s and the modern IUD significantly improved shortly thereafter. Recent decades have also seen the development of safer less cumbersome procedures for male and female sterilization.

In addition, traditional contraceptive methods have been refined. New knowledge about the relationship between ovulation and certain body changes has increased the effectiveness of periodic abstinence although it is still substantially less reliable than the more modern methods. Improvements in design and materials have produced better condoms, diaphragms, cervical caps, tampons, and spermicides. Efforts are continuing to develop safer and more effective contraceptive methods for both men and women.

A contraceptive's effectiveness, as well as other advantages or disadvantages associated with it, such as cultural acceptability, cost, and side effects, are important determinants of how commonly it is used. The oral contraceptive pill is recognized as one of the most effective methods of preventing pregnancy. Injectable progestogen hormones prevent pregnancies in much the same way as the oral contraceptive. A simple injection (usually every three to six months) offers effective protection without the self-discipline that is required of the women who must take the pill every day. Both methods offer the added advantage of being independent from the sex act, but there is some concern about their safety.

When modern intrauterine devices first appeared some decades ago, they were seen as a major technological breakthrough, because, once in place, no further action is required of the user. Despite optimistic expectations, the IUD's popularity still suffers because of high expulsion rates and occasional side effects.

Sterilization for contraceptive purposes is a means of permanently ending reproduction. It requires a single act, is nearly 100 percent effective, and is relatively free of side effects. However, thus far it is generally considered to be irreversible. Contraceptive sterilization is a method largely used by older couples who have already reached or exceeded their desired family size. In many countries the prevalence of female sterilization is higher than that of male sterilization, although in others, like India, the reverse is true. The popularity of male and female sterilization as a contraceptive technique is increasing in part because of growing availability. However, the involvement of a surgical procedure may be hindering its wider use.

Other contraceptive methods, such as the condom, diaphragm, jellies, foams, tablets, suppositories, sponges, and creams share the disadvantage of being directly related to sexual intercourse and are subject to a high risk of failure if improperly or carelessly used. Although no contraceptive method is 100 percent effective, failure rates are the highest among contraceptives most closely linked to the time of intercourse. Abstinence and withdrawal, while not dependent on artificial means to avoid conception, pose the same problems since their effectiveness requires a more intense degree of motivation and care.

Reliance on contraceptives is not the only way to limit fertility. Variations in fertility levels result from a complex interplay of cultural, social, and economic forces that contribute to the reproductive behavior of individuals. These forces affect fertility by influencing not only contraceptive practices, but also marriage, lactation, and induced abortion, although other factors like sterility and spontaneous intrauterine mortality are also involved.[1]

Marriage or nuptiality (including consensual unions) patterns describe the ages at which people marry, how rapidly marital unions are formed, how long they last, and the proportions of people who ever-marry in a population. Marriage patterns play

a significant role in determining fertility since they affect the length of time a woman may be exposed to the risk of conception by living in union with her husband.[2]

Lactation or breast-feeding patterns influence fertility through biological and cultural means. Breast-feeding inhibits or delays ovulation, thereby biologically lessening the probability of conception. In some cultures fertility is also lowered because women reduce the frequency of, or completely avoid, intercourse while breast-feeding.[3]

Abortion contributes to fertility differentials by keeping the number of births below the maximum levels that could result given certain conception rates. Cultural and socioeconomic factors have an impact on the incidence of induced abortion. For example, abortion rates differ according to education and income level in many countries.[4]

In some, fertility can only change as a result of shifts in (1) patterns of family planning, including both levels of use and method mix; (2) abortion; (3) sexual behavior, including age at marriage, separation of couples either because one spouse is working away from home or because of marital disharmony, and marriage dissolution; and (4) lactation. Fertility can also be affected by changes in levels of fecundity and spontaneous abortion which in turn can be affected by diet, disease, or age. All other factors mentioned as having a potential impact on fertility can only have an influence through one or more of these direct forces.

Interpretation of WFS Data

This report describes the patterns of knowledge and use of contraception in the 20 developing countries indicated in Figure 1. One of these countries, Kenya, is in Sub-Saharan Africa, eight are in the Western Hemisphere, and the remainder are in Asia and the Pacific. These countries are extremely heterogeneous in terms of socioeconomic, ethnic, cultural, and other variables. Appendix Table A-1 summarizes some basic indicators for these countries. Earlier reports in this series briefly discuss some of their more salient characteristics.[5]

One of the principal accomplishments of the World Fertility Survey (WFS) has been to provide dependable and internationally comparable data on knowledge and use of contraception. In presenting these data, a two-way classification of contraceptive methods was devised. According to the criteria adopted, contraceptive methods are classified as follows:

(1) *Efficient Methods*—"modern" methods including contraceptive sterilization (male or female), the pill, IUD, condom, injections, and other female barrier and chemical methods (*i.e.*, diaphragm, jelly, foam, tablet, tampon, sponge, and cream).

(2) *Inefficient Methods*—"traditional" methods, including abstinence, rhythm, withdrawal, douche, and folk methods.

In general, "modern" methods have been labeled "efficient" while "traditional" methods have been labeled "inefficient." (The terms are used interchangeably in this Report). These categories are somewhat arbitrary but are standard WFS terminology. The rhythm method, under certain specific conditions, can be fairly effective. When this method is practiced carelessly, as it often is, failure rates may be 30 to 50 times higher.[6] Similarly, the pill, when properly used, is almost as effective as sterilization, but it can be quite ineffective if directions are not followed correctly. Abstinence is classified as an inefficient method although, by definition, conception cannot occur in the absence of sexual contact. Yet abstinence is considered inefficient because most couples do not follow this method for prolonged periods of time, or with the required consistency. Additionally, in some countries, interpretative difficulties may arise because some of the national surveys excluded certain methods from their questionnaires.

When evaluating the mix of contraceptive methods known or used at a specific time in a given country many factors should be considered. The availability of information, accessibility of services, and orientation of private and government-sponsored family planning programs are important considerations. Patterns of knowledge and use of specific contraceptive methods may be highly dependent on the vigor with which the various methods have been promoted. In some countries, family planning programs place heavy emphasis on particular methods or focus on providing selected contraceptive methods considered appropriate for specific groups. For instance, in Korea, the national family planning program for years promoted the use of the IUD. In some cases sterilization is only offered to couples with several children or with at least one son. In others, the "cafeteria approach" is used, placing a wide range of methods at the disposal of potential clients. Some of the factors that help explain the distinctive contraceptive knowledge and use patterns recorded in the surveys include not only the program differences noted above, but commercial availability of contraceptives through

local retailers, access of the people to these sources of advice and supply, cultural acceptability of given methods and, in the case of traditional methods, their past prevalence.

Knowledge of Contraception

The questionnaire used in the national surveys gathered information on knowledge of contraception by asking all ever-married women* whether they know about ways of delaying or avoiding pregnancy. Those answering positively were asked to name the methods with which they were familiar. The respondents were then given descriptions of other methods and asked if they knew about these. For those who were unaware of any contraceptive methods, the complete list was described and their recognition of any of the methods recorded. Since such follow-up questioning increases the rate of positive response, the percentages of women expressing knowledge about contraception are highest following the use of this technique. WFS data represent a composite of the spontaneous and probing approaches, thus resulting in some comparability problems involving surveys that did not prompt for all methods.[7]

Keeping in mind these limitations, the WFS data offer a number of insights. Awareness of contraceptive methods, as shown in Figure 2, tends to be widespread in the 20 countries discussed. In all but one, three-quarters or more of ever-married women have heard of contraception; knowledge of contraception is nearly universal in about half of these countries.

Nepal is the only country where a majority of women have never heard of contraceptives. (Only 23 percent were aware of them.) To a minor extent this may have reflected the absence of probing about certain methods ("other" female modern, injection, douche, rhythm, and withdrawal). A more important reason for the low percentage is that, compared to the other countries, influences from the outside world are not yet strong enough in Nepal to erode the traditional nature of the society and contraceptives have not been generally available.

Modern methods are better known than traditional ones. Awareness of modern methods is greatest, as may be expected, in countries where the overall level of contraceptive knowledge is highest and where family planning programs exist.

Given the limitations previously described, the pill is the best known modern method in 16 of the 20 countries (see Table 1). In the remaining countries sterilization is the best known—female sterilization in Sri Lanka, the Dominican Republic, and Guyana, and male sterilization in Nepal. In Guyana, the IUD is equally well known. Overall, the IUD is the second best known modern method. Except in Nepal, at least 40 percent of all ever-married women were aware of IUDs. As a rule, the condom is well known although knowledge of this method may be under-reported since it is a male method. Familiarity with hormonal injectables varies greatly from country to country, as is true of other modern methods like foams and diaphragms. In countries such as Indonesia and Korea these methods are not familiar, while in others like Costa Rica and Jamaica over two-thirds of the ever-married women reported knowing of them.

As with the modern methods, familiarity with traditional methods tends to be positively associated with reported overall levels of knowledge, although the relationship is not as consistent. Cultural practices associated with the traditional methods may explain this irregular relationship. Rhythm and withdrawal tend to be the best known traditional contraceptive methods, especially among populations of European origin in Latin America. In some South Asian countries, such as Nepal and Pakistan, knowledge levels have not been ascertained because of data limitations in the survey, but it is generally thought that knowledge of withdrawal and rhythm is low in South Asia.

In sum, most women in these developing countries are aware of contraceptives—Nepal being the sole exception. The pill is by far the best known family planning method followed by the IUD. Some of the more traditional methods such as rhythm and abstinence are apparently not as well known as might be expected *a priori*. For example, only in Kenya and Fiji, among the countries reporting knowledge of abstinence, did over 40 percent of the ever-married women indicate familiarity with this obvious, if hard to practice, family planning method. This is not to imply that women do not know the relationship between intercourse and pregnancy. Rather, abstinence may not be a realistic option for them.

*Including separated, divorced, or widowed women in addition to those married or in consensual unions in those countries where these unions are prevalent.

Table 1. Percent of Ever-married Women Who Have Heard of Specific Contraceptive Methods: WFS Countries

COUNTRY	No. of Women*	Sterilization Female	Sterilization Male	Pill	Injection	IUD	Condom	Foam, diaphragm, etc.	Rhythm	Withdrawal	Abstinence	Douche	Other
AFRICA													
Kenya**	8100	54	14	74	55	49	40	20	50	25	45	12	21
ASIA AND THE PACIFIC													
Bangladesh	6515	53	51	64	—	40	21	10	28	15	12	31	5
Fiji	4928	96	40	98	50	97	83	41[a]	57	56	57	—[a]	5
Indonesia	9155	11	8	71	17	50	41	5	12	7	13	3	28
Jordan	3611	79	19	96	—	76	51	21	50	54	33	20	55
Korea, Rep. of	5430	66	84	94	5	91	75	5	58	37	25	27	2
Malaysia	6318	73	34	87	48	40	52	26	38	30	30	—	21
Nepal	5940	13	16	12	0	6	5	0	0	0	5	0	1
Pakistan	4952	7	2	63	13	48	14	7	0	0	2	0	1
Philippines	9268	75	70	90	—	86	88	40	66	65	36	21	4
Sri Lanka	6868	82	38	79	43	62	51	11	44	20	31	9	3
Thailand	3820	87	70	92	71	86	48	22	32	22	36	17	1
LATIN AMERICA AND THE CARIBBEAN													
Colombia	3302	72	38	90	71	82	60	56	56	47	28	41	9
Costa Rica†	3037	94	67	98	88	91	91	71	81	67	31	60	7
Dominican Republic	2256	95	30	91	68	78	72	60	43	56	—	47	12
Guyana	3616	79	22	78	38	79	73	45	46	48	32	36	10
Jamaica	2765	88	40	95	87	84	90	67	39	59	38	43	3
Mexico	6255	68	38	83	68	75	42	28	48	47	—[b]	38	4
Panama†	3203	93	65	95	26	89	76	56	66	61	35	62	4
Peru	5639	60	19	63	61	42	40	31	55	40	24	47	11

*Unless otherwise stated, based on women aged under 50 or 15-49 ever-married or in a union. Data taken from M. Vaessen, "Knowledge of Contraceptive Methods," *WFS Comparative Studies*, No. 8 (May 1980), Table 1, p. 16, and from standard recode data tapes.

**Based on all women 15-50.

†Based on ages 20-49.

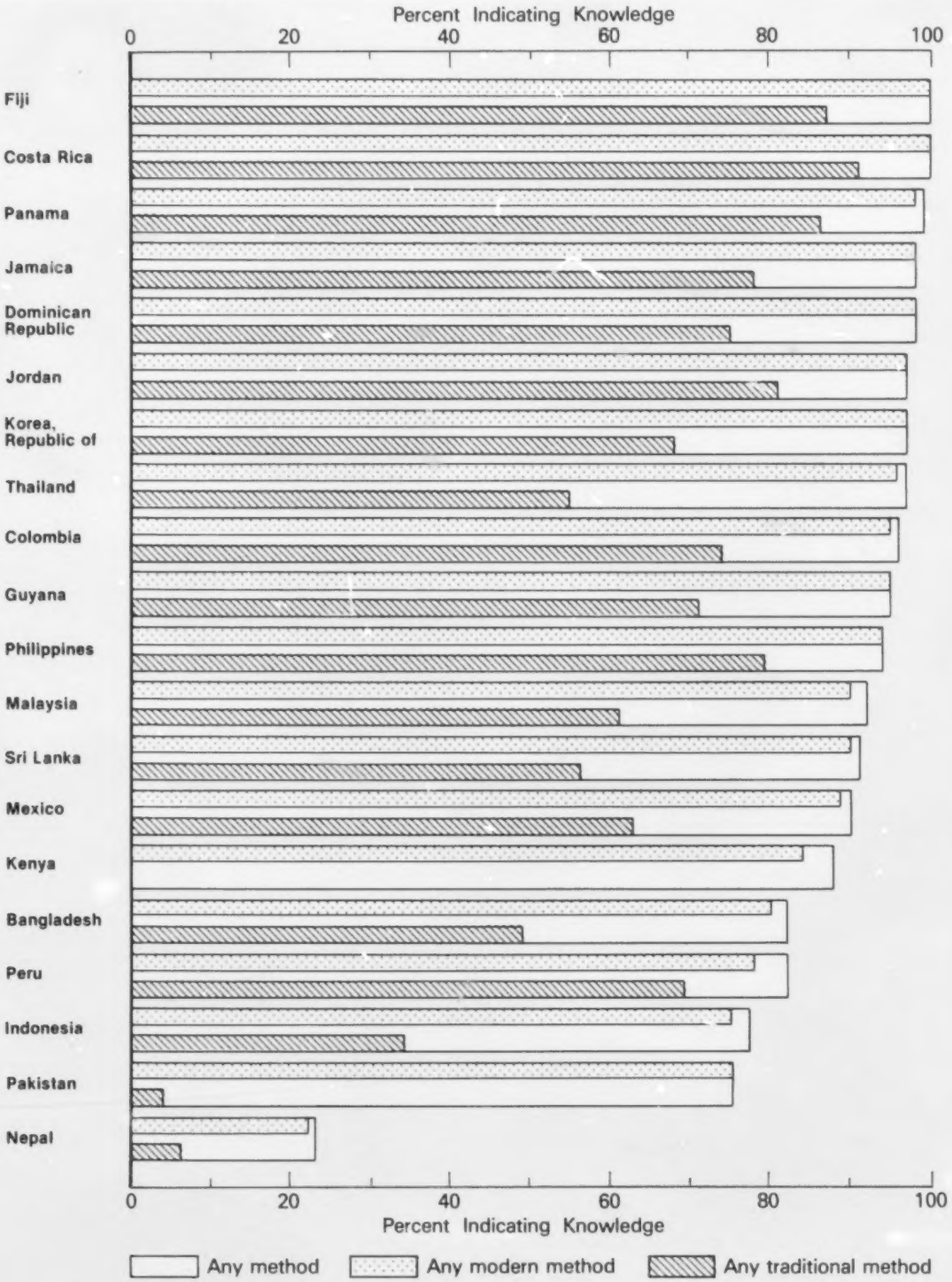
[a]Douche included with foam, etc.

[b]Included with "other".

—Not available.

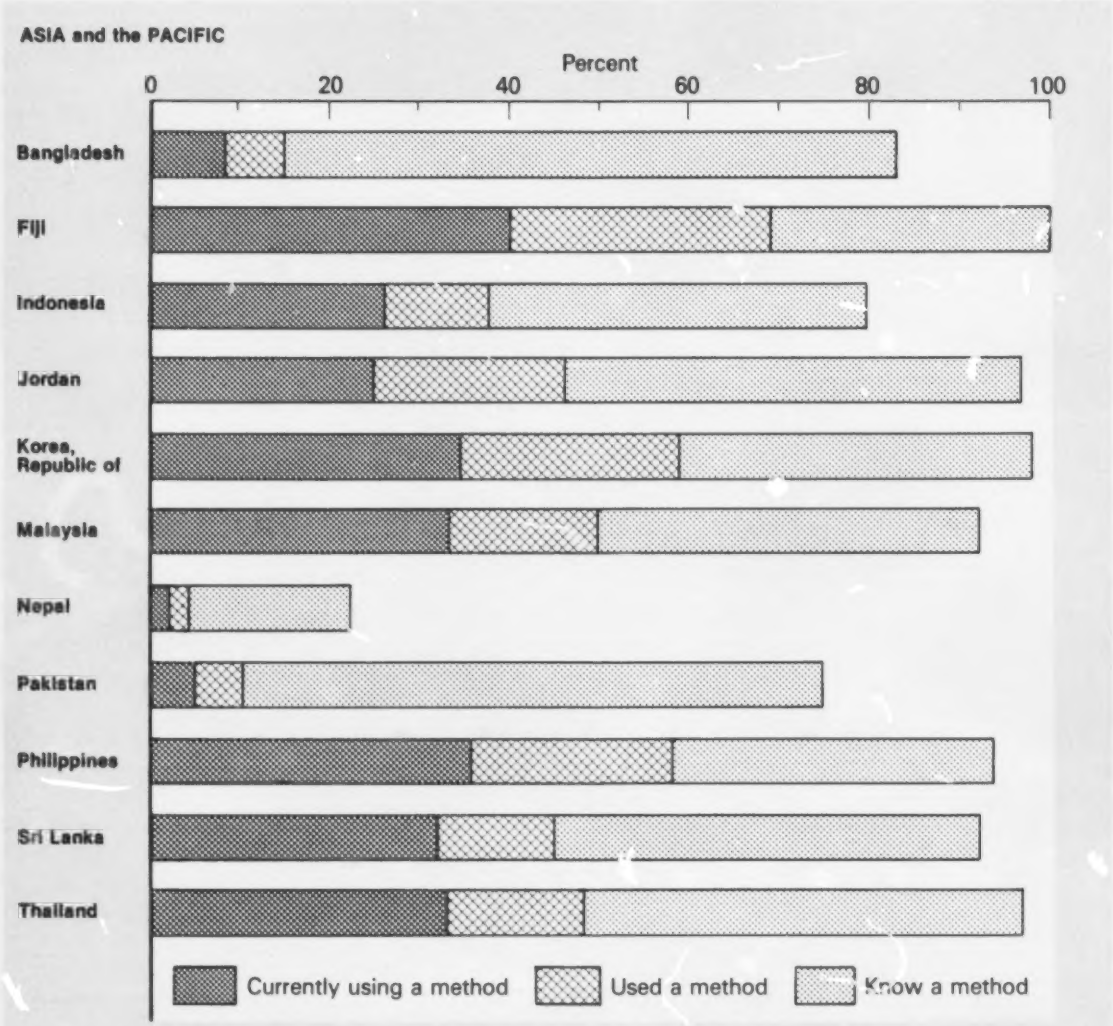
Source: United Nations, no date, Table 1, pp. 6-7.

Figure 2. Percent of Ever-married Women Indicating Knowledge of Contraceptive Methods: WFS Countries



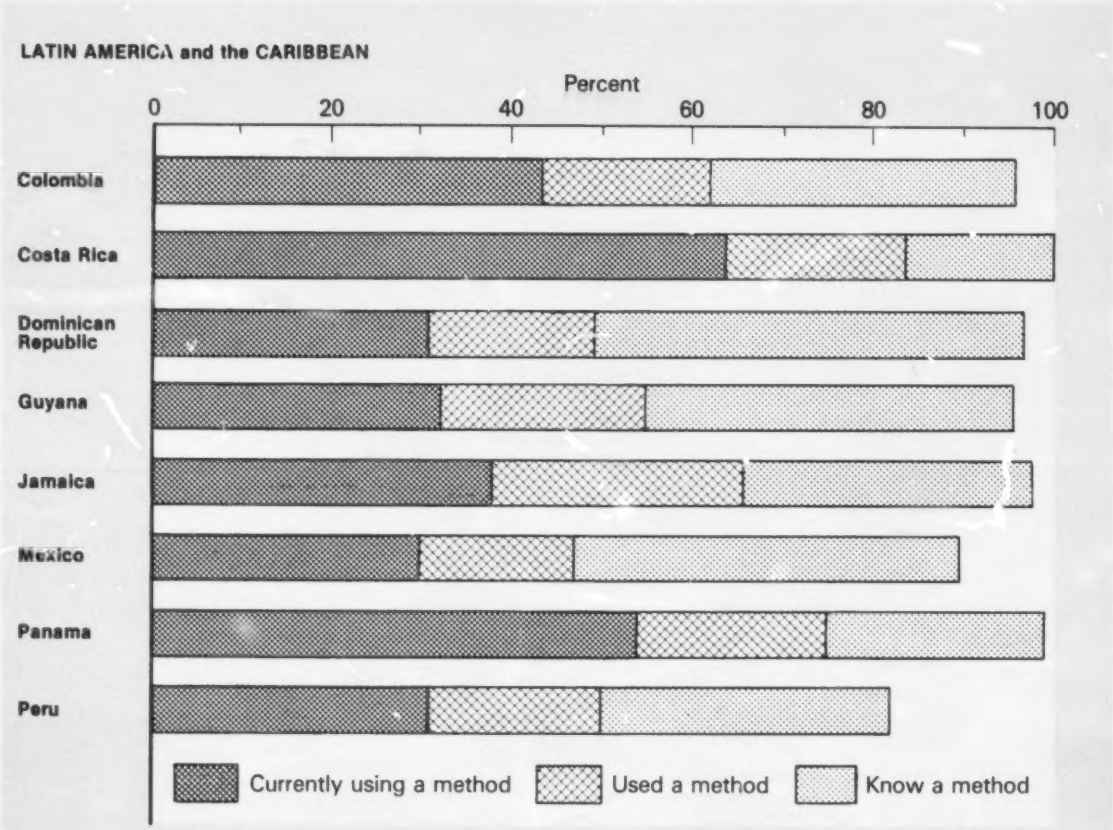
Source: Appendix Table A.2

Figure 3. Percent of Currently Married Women Who Know About, Have Used, and Currently Use Contraception: WFS Countries, Asia and the Pacific



Source: Appendix Table A-3.

Figure 4. Percent of Currently Married Women Who Know About, Have Used, and Currently Use Contraception: WFS Countries, Latin America and the Caribbean



Source: Appendix Table A-3.

Contraceptive Use

Having heard of contraceptives does not mean women use them. In order to determine the extent of actual use the WFS national surveys asked women to report whether they had ever practiced or were currently practicing birth control. Information about the extent of current contraceptive use is of great interest since it indicates how widely women or couples are consciously attempting to control their fertility. This information, particularly when available for different sub-groups of the population, is useful to administrators of family planning services concerned with satisfying the needs of their potential clientele.

Figures 3 and 4 show the percentages of currently married women who know about, have ever used, and are currently using contraception. These data involve currently married women rather than ever-married women thereby excluding women who although married or in consensual unions at one time

are now separated, divorced, or widowed. As expected, currently married women exhibit patterns of knowledge almost identical to those observed for ever-married women.

Generally, the percentages of current users among ever-users tend to be greater in countries where contraceptive prevalence rates are highest and the reverse holds true. This is particularly evident at the highest and lowest levels of contraceptive use.[8] In Costa Rica, for instance, where levels of ever-use and current use are highest, three out of every four women who ever used contraceptives are current users. In Nepal, where use levels are the lowest, only one of every two ever-users is a current user. Indonesia is an interesting exception since despite relatively low past levels, the percentage of current users among ever-users is nearly as high as in the countries with the highest prevalence rates. The opposite pattern can be observed in Fiji and Jamaica where the percentage of current users is relatively low despite high levels of ever use.

It is not clear what factors account for these patterns. The recentness and vitality of organized family planning programs, changes in the individual commitment to control family size, and the extent to which contraception is used to space births as well as to limit fertility may all be involved, among other factors.

Exposed Women

Not all currently married women are motivated or need to use contraception. Some are not concerned with methods to prevent conception because they are infecund, already pregnant, or want to become pregnant. Thus, when comparing the prevalence of contraception in many countries it is important to focus on the behavior of women who can become pregnant rather than all currently married women. The data in Table 2 categorize the currently married women in reproductive ages who are potential users of contraception—that is, women who are not pregnant or involuntarily infecund. Those exposed to pregnancy range from a low of 68 percent in Jordan to a high of 85 percent in Guyana. Significant proportions of women reported themselves as infecund. The range among countries is wide with the highest reported level three times greater than the lowest suggesting problems with self-reporting. Guyana with five percent has the lowest reported incidence, while Indonesia and Thailand—each with 17 percent—the highest. Cultural and regional differences in the self-reporting of infecundity may partially explain these disparities, although other factors are likely to be involved.

The proportion of currently married women pregnant at the time of the surveys ranged from nine percent in Costa Rica and Jamaica to 21 percent in Jordan. Such a wide range results from differentials in both age structure and fertility among countries. In general, low fertility countries tend to have smaller proportions of pregnant women.

Many non-pregnant, fecund women are not currently using a contraceptive method and will not use one in the immediate future because they desire to have children, and may be trying to become pregnant. While some women use contraceptives in order to cease childbeaing completely, having reached or exceeded their desired family size, others do so for spacing purposes. Still other women may stop for short periods of time for a variety of reasons, such as temporary separations from their spouse, contraceptive side effects, etc.

The percentage of exposed women who are actual users is shown in Figure 5. In all countries but four, 37 percent or more of the exposed women are attempting to control their fertility. Current use levels are exceptionally high in Costa Rica and Panama. In Costa Rica, almost eight out of ten exposed women practice family planning, and in Panama almost seven out of every ten. Kenya and the South Asian countries of Bangladesh, Pakistan, and Nepal exhibit the lowest percentages of current use: 9, 10, 7, and 3 percent, respectively, of exposed women.

Specific Contraceptive Methods in Current Use

An important consideration when comparing contraceptive prevalence rates across countries is the use-pattern of particular methods, that is, what specific methods are favored and used by both family planning programs and the users themselves. This "method mix" can influence the observed prevalence rates. For example, in Panama, where 39 percent of those currently practicing family planning use sterilization, a higher contraceptive prevalence rate should be expected since this method is irreversible and most women using it will remain in the "current user" group. On the other hand, the opposite impact is felt in Colombia, where the pill is the principal method of family planning, since this method may be used intermittently for spacing children as well as to terminate childbearing.

Table 2. Marital Status of Women in the Reproductive Ages and Exposure Status of Currently Married Women: WFS Countries

COUNTRY	Percent Currently Married of All Women Aged 15-49	Currently Married Women Percent Total[a]	Exposed	Infecund	Pregnant	Percent Exposed of All Women Aged 15-49
AFRICA						
Kenya	71	100[c]	73	11	17	52
ASIA AND THE PACIFIC						
Bangladesh	81	100	81	7	13	65
Fiji	64	100[c]	78	10	12	50
Indonesia	69	100	72	17	12	50
Jordan	66	100	68	11	21	45
Korea, Rep. of	62	100	76	13	11	47
Malaysia	57	100[b]	77	11	11	44
Nepal	84	100[b]	79	11	11	66
Pakistan	75	100	71	12	17	54
Philippines	54	100[b]	75	11	14	41
Sri Lanka	54	100	76	14	10	41
Thailand	60	100	73	17	10	44
LATIN AMERICA AND THE CARIBBEAN						
Colombia	53	100	82	6	10	44
Costa Rica[c]	68	100[b]	82	9	9	56
Dominican Republic	56	100[b]	75	8	18	42
Guyana	—	100	85	5	10	—
Jamaica	63[d]	100[b]	84	7	9	53
Mexico	60	100[b]	73	13	15	43
Panama[c]	74	100	83	7	10	61
Peru	56	100	76	11	13	43

[a]Percentages may not add to 100 because of rounding.

[b]Includes women currently pregnant but not married, if any.

[c]All figures pertain to age group 20-49.

[d]Data taken from S. Singh, "Evaluation of the Jamaica Fertility Survey," WFS/TECH.1203 (19 October 1979), Table 10, p. 21, mimeo.

—Not available.

Source: United Nations, no date, Table 4, p. 14. (Unless otherwise stated, data taken from WFS First Country Reports and standard recode data tapes).

Each method's degree of effectiveness is also important. Sterilization, the IUD, and the pill are nearly 100 percent effective. Other contraceptives such as chemical spermicides and calendar rhythm, even under ideal conditions of use, are far less effective in averting pregnancy. Thus in populations where the prevalence of more effective methods is highest, women are more likely to be successful in limiting their fertility than in populations where less effective methods predominate.

Table 3 indicates the "mix of family planning" methods used. In all countries but the Philippines and Peru, a majority of current users rely on modern contraceptive methods. In Nepal, Thailand, Guyana, and Jamaica 90 percent or more use modern methods. Of course, in Nepal a very low percentage of currently married women use any contraceptive. Among the countries where a substantial proportion of the women are current users—Fiji, Colombia, Costa Rica, and Panama—most rely on modern methods.

Figure 5. Percent of Exposed* Women Who Are Currently Using Contraception: WFS Countries

* "Exposed" women are currently married (or in a consensual union), not pregnant, and either (a) believe themselves physiologically capable of bearing children, or (b) are sterilized for contraceptive purposes.

Source: Appendix Table A-3.

Among modern contraceptive methods the pill is the most frequently used. In Indonesia 56 percent of users rely on the pill and in all but five of the other countries use levels range from 20 to 50 percent. The pill is least common in Sri Lanka where it is taken by only five percent of women practicing family planning.

Other modern contraceptive methods in common use are the IUD and sterilization. Current use of the IUD ranges from a high of 23 percent in Korea to three percent or less in Malaysia and Nepal. The extent of contraceptive sterilization in some countries reflects the emphasis of particular national family planning programs. For example, in Nepal, male sterilization accounts for 65 percent of current contraceptive use, female sterilization for three percent. Contraception is clearly a means of limiting the number of children rather than spacing births among the few Nepalese couples who rely on some form of birth control.[9] High levels of sterilization are also found in Fiji, the Dominican Republic, and Panama; nearly 40 percent of the women practicing contraception in these countries rely on this method. The World Fertility Survey shows that sterilization accounts for ten percent or more of contraceptive use in all but four countries: Peru, Colombia, Indonesia, and Jordan. The 1978 Contraceptive Prevalence Survey for Colombia found, however, that by that year 17 percent of women users currently in union relied on sterilization. Other modern methods are not commonly used in Asian countries or in Kenya. They are slightly more popular in Latin American countries, where, except for the condom, they account for between three and seven percent of contraceptives used. The condom is quite popular in many Asian and Latin American countries, its use rivaling that of other modern methods.

Among traditional methods, rhythm is the most popular. About one-fourth of the contraceptive users in the Philippines and Sri Lanka practiced rhythm. In Indonesia, Thailand, the Dominican Republic, Jamaica, and Panama use of this method was low. Withdrawal and abstinence are commonly relied upon in only a few countries. Withdrawal is most popular in the Philippines, where it is practiced by 26 percent of couples using contraception. In Jordan, Colombia, the Dominican Republic, and Peru dependence on withdrawal was also substantial. Abstinence was practiced by 22 percent of the users in Pakistan and by over ten percent of those in Bangladesh and Sri Lanka. Peru is the only Latin American country where a substantial proportion of women rely on abstinence to limit their fertility.

Table 3. Percent Distribution of Current Contraceptive Users by Method: WFS Countries*

COUNTRY	Modern Methods:[a]	Pill	Injection	IUD	Condom	Diaphragm, Foam etc.	Sterilization Female	Sterilization Male	Traditional Methods:	Rhythm	Withdrawal	Abstinence	Douche	Other
AFRICA														
Kenya	60	30	10	10	0	0	10	0	40	20	—	20	—	—
ASIA AND THE PACIFIC														
Bangladesh	61	35	0	6	9	0	4	6	39	13	7	15	1	3
Fiji[c]	86	20	—	11	15	—[d]	—39—		15	6	6	—	3	—
Indonesia	87	56	1	21	7	0	1	0	13	3	1	4	0	5
Jordan	69	47	—	8	6	1	7	0	30	8	13	1	0	8
Korea, Rep. of	77	24	1	23	15	1	5	9	22	13	7	1	1	0
Malaysia	72	—49—		2	9	1	10	1	28	11	6	5	—6—	
Nepal	98	17	0	3	9	0	3	65	2	0	0	2	0	0
Pakistan	72	18	0	12	19	3	18	1	28	2	2	22	0	2
Philippines	45	13	0	6	10	0	13	2	55	24	26	5	0	0
Sri Lanka	59	5	1	15	7	0	—31—		41	25	5	11	0	0
Thailand	92	41	6	18	1	0	19	6	9	3	3	2	0	1
LATIN AMERICA AND THE CARIBBEAN														
Colombia	72	31	1	20	4	5	9	0	28	12	11	2	1	2
Costa Rica	83	35	3	8	14	3	19	2	16	8	7	1	0	0
Dominican Republic	84	—26—		9	5	7	38	0	16	4	11	—	—	1
Guyana	90	29	1	18	9	6	27	0	10	3	4	2	0	1
Jamaica	94	31	16	5	17	4	21	0	6	1	4	1	0	0
Mexico	77	36	6	19	2	5	9	1	23	16	12	—	1	0
Panama	85	32	1	7	2	3	39	1	16	5	6	3	1	1
Peru	36	13	3	4	3	3	9	0	65	35	10	7	11	2

*Percentages have been calculated on the basis of currently married current users aged 15-49 years or under age 50, unless otherwise specified. Percentages may not add to 100 because of rounding.

[a]Sterilization, pill, injection, IUD, condom, diaphragm, and foam and other spermicides.

[b]Includes other spermicides, such as jelly, suppositories.

[c]Excludes women practicing post-partum abstinence.

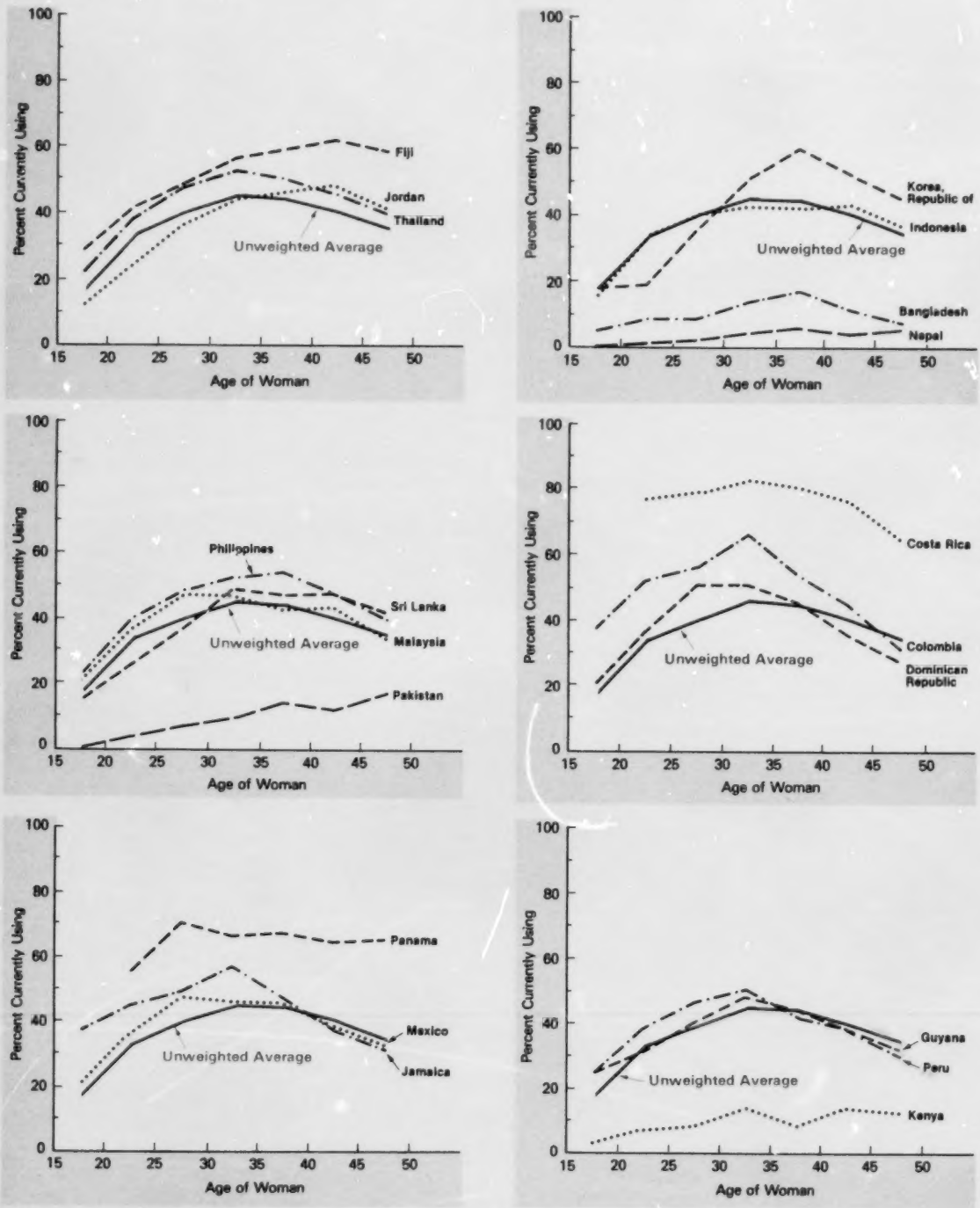
[d]Included with "Other" category.

—Not available.

Sources: Kenya: *1977/78 Kenya Fertility Survey, Major Highlights* (WFS), Table 22, p. 55.

All Other Countries: United Nations, no date, Table 6, pp. 22-27. (Unless otherwise stated, taken from WFS First Country Reports and standard recode data tapes.)

Figure 6. Percent of Exposed Women Currently Using Contraception by Age: WFS Countries



Source: Appendix Table A-4.

Other traditional methods are found only to a limited extent in these countries. One notable exception is douching in Peru where 11 percent of contraceptive users employ this method.

Patterns of Contraceptive Use by Selected Background Variables

Many factors influence the extent to which women practice contraception. A woman's age and number of living children are important. Other variables, such as educational attainment, employment status, and availability of services are also generally found to be associated with contraceptive use.

Younger women who have just entered reproductive unions are less likely to practice contraception than older women who have been married for a number of years. They are often eager to start their families and may also be less aware of contraception. The more children a woman has the more likely she has attained her desired family size and will take action to avoid additional births. Higher educational attainment or participation in the labor force may increase the opportunity cost of having children or in other ways motivate or enable women to use contraceptives. These relationships are not straightforward, however. Some young women, for example, may begin to practice contraception immediately after entering into reproductive unions to postpone the birth of the first child. Many cultural and economic factors as well as program goals contribute to observed variations in patterns of contraceptive use.

A brief discussion of patterns of contraceptive use by age of women, number of living children, education, residence, and labor force status of women at the time of the national surveys is presented.

Contraceptive Use by Age of Exposed Women

Current contraceptive use patterns by age among exposed women are curvilinear, with the percentages of women practicing contraception lowest at the younger and older ages, and highest in the middle reproductive years (as illustrated in Figure 6). For comparative purposes the unweighted average of exposed women using family planning by age for all countries combined is also shown.

Most countries conform to the general pattern described above, although there are some notable deviations. Younger women in Korea and Sri Lanka, for example, are much less likely to regulate their fertility than their counterparts in other countries with comparable *overall* contraceptive prevalence rates such as Malaysia and Thailand. The pattern observed in the former countries may result from cultural preferences for rapid family formation after couples enter into reproductive unions. The curvilinear pattern is less noticeable in countries with the lowest and highest levels of overall contraceptive use, especially the latter. Indeed, in Fiji the percentage of contraceptive users rises consistently with age. In countries like Kenya, Nepal, and Pakistan, where overall contraceptive levels are low, usage also rises as age increases.

In general, however, contraceptive use is greatest among women between ages 25 to 39, and least among younger women. This pattern is shown in Figure 6 in the unweighted average for all 20 countries combined.

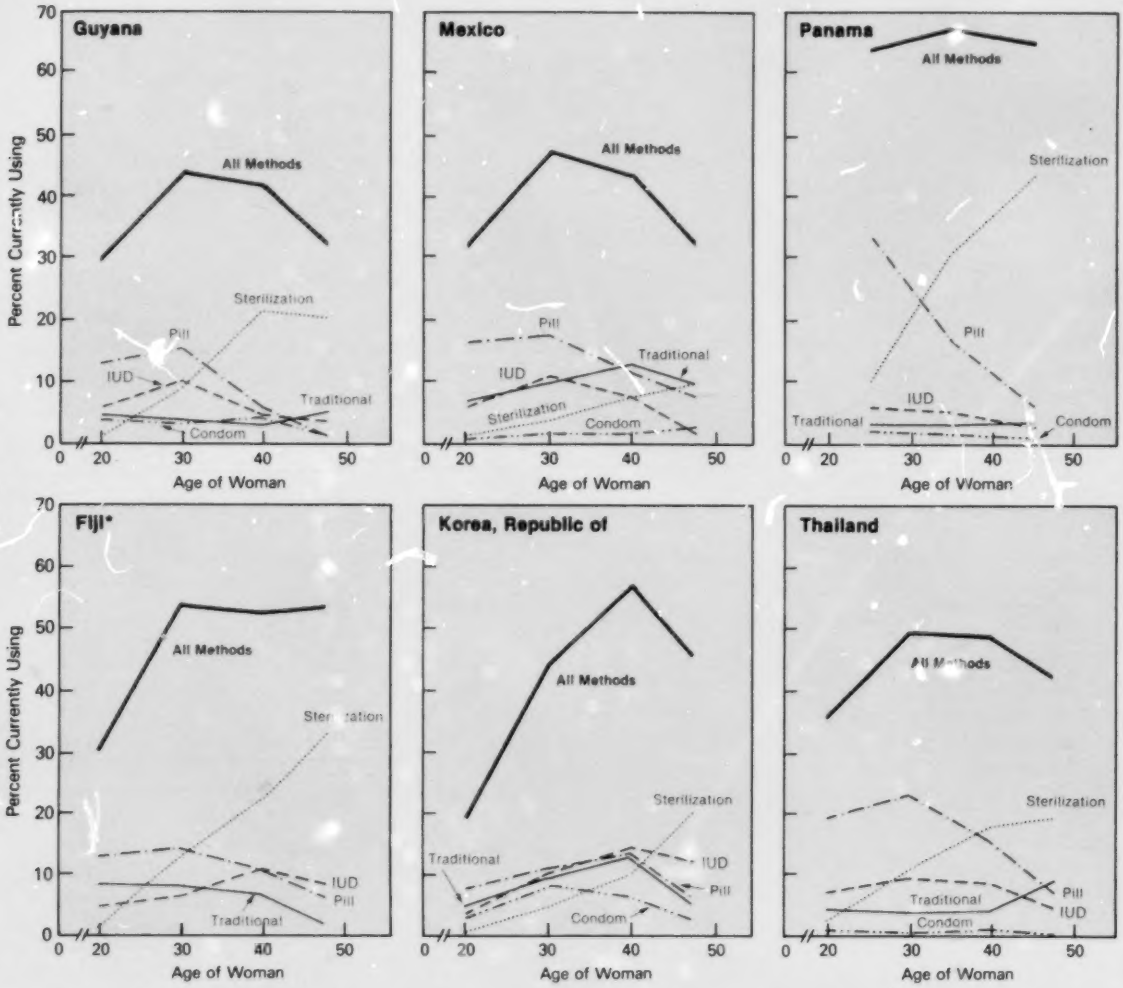
Contraceptive use patterns by age for specific methods differ considerably as illustrated in Figure 7 with data from Guyana, Mexico, Thailand, and Fiji.[10] Sterilization presents the most consistent pattern. Sterilization levels tend to rise with age or, at least, to plateau at the highest levels past a given age, as in Guyana. The rising incidence with age is expected because usually only women who have already reached or exceeded their desired family size undergo this irreversible procedure.

Use rates for condoms and the pill rise with age reaching their peak during the mid-years of a woman's reproductive life (roughly ages 25 to 34). This may result from the tendency of younger women to practice contraception following the birth of one or two children soon after marriage. The declining trend at older ages may reflect a switching from these methods to more permanent methods of curtailing fertility such as sterilization, or by increasing dependence on traditional methods as frequency of intercourse and the level of fecundity decline. Younger women may also be more inclined to practice contraception in general particularly in countries where family planning behavior has only become widespread in recent years. No discernible patterns of use according to age can be identified with the remaining methods shown in Figure 7.

Contraceptive Use by Number of Living Children

Given the close relationship between age and parity it is reasonable to expect that the patterns of contraceptive use by number of living children should resemble those noted for contraceptive use by age. Figure 8 indicates that this is the case. For comparison, the unweighted average of exposed women

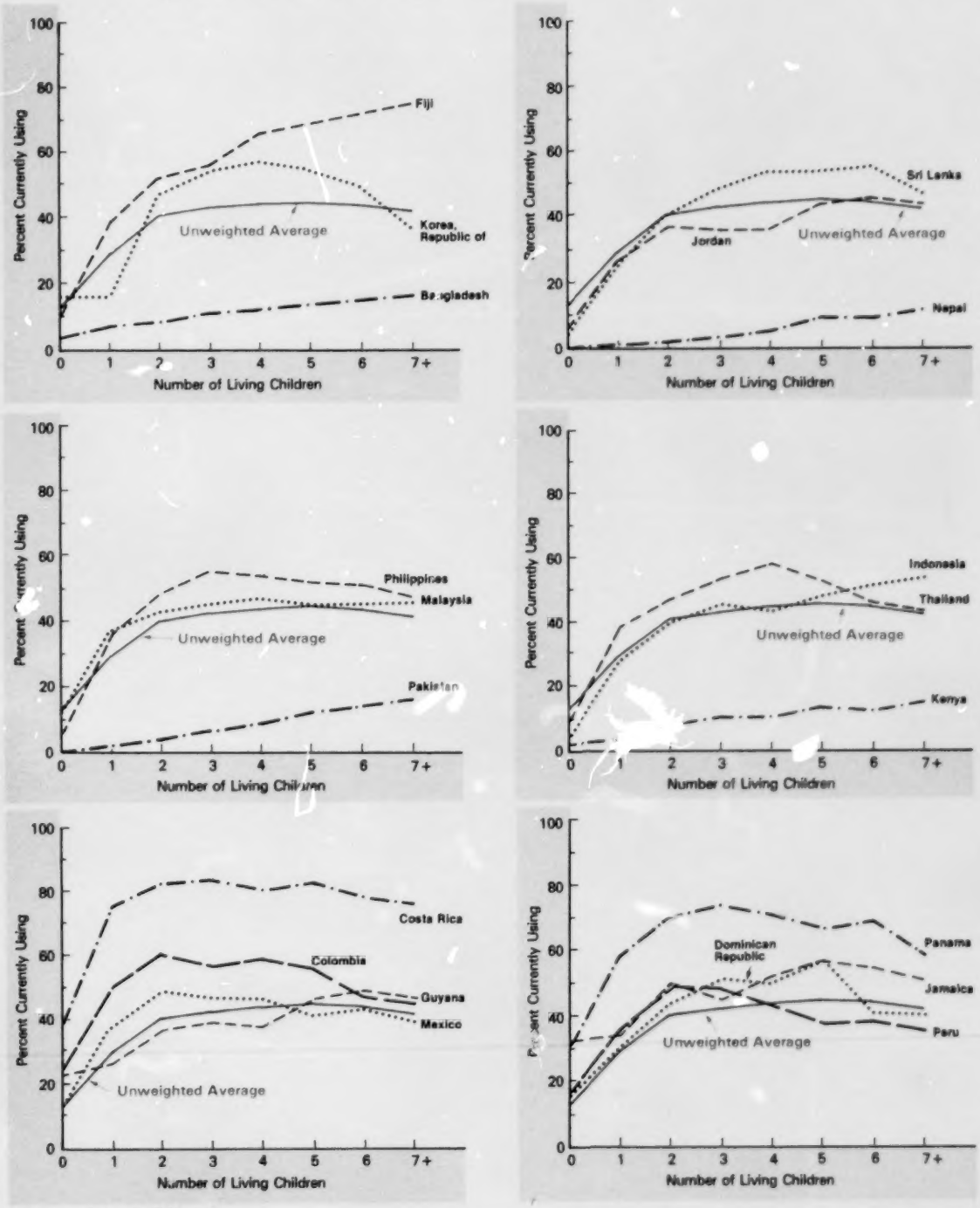
Figure 7. Age Patterns of Use for Specific Contraceptive Methods Among Exposed Women: Selected WFS Countries



*Data not available on condom usage by age of woman.

Source: Appendix Table A-5.

Figure 8. Percent of Exposed Women Currently Using Contraception by Number of Living Children: WFS Countries



Source: Appendix Table A-6.

practicing contraception by number of living children is included.

Few generalizations are possible regarding the relationship between contraceptive use and number of living children except that the most significant increases in use are recorded up to the third living child. The most dramatic illustration of this pattern can be observed in Korea where women with two children were twice as likely to be using contraceptives as those with only one. On average, contraceptive use tends to level off with subsequent children. However, the pattern is not uniform in all countries. In Bangladesh and Fiji the increasing tendency toward contraception by number of living children is unmistakable, while in Korea, Thailand, Colombia, and the Dominican Republic use levels tend to decline somewhat as the number of children increases. More traditional attitudes among higher parity, older women may account for this decline since they are likely to be less educated, have a lower motivation to practice family planning, and be less aware of modern contraceptive methods than younger women. Also contraceptive users are less likely to have large families.

One striking regional difference can be observed: Latin American and Caribbean women with fewer living children are more likely to try to limit their fertility than Asian or Kenyan women. This is especially true of childless women, and to a lesser extent of women with one or two living children. Perhaps Latin American and Caribbean women are more likely than women from other regions to use contraception for spacing births and/or are relatively less prone to initiate childbearing immediately after entering a reproductive union. Cultural and other factors such as a higher incidence of consensual unions may also be involved in this differential. Finally, some Asian programs only allow access to family planning services to women with the prescribed number of living children. In addition, some Asian countries have tended to emphasize the IUD rather than the pill, even though it is often difficult to use for women who have not yet given birth.

Contraceptive Use by Level of Education

Many studies have found a consistent inverse relationship between fertility and education. Since variations in fertility are influenced to a significant degree by the frequency of contraceptive use it follows that educational and contraceptive use levels tend to be positively related.

Respondents in the World Fertility Survey were asked whether they had ever attended school and the highest year and/or level of education completed. Since educational systems and the substance and quality of instruction vary tremendously among countries, there is no universally applicable indicator of education. In this paper, women are classified according to the highest level attended—no education, primary education, secondary education.[11]

The often dramatic differences in contraceptive behavior by education groups are shown in panel one of Table 4. Except in Fiji and Korea, where women with no education have higher prevalence rates than women with primary education, the expected positive relationship between contraceptive use and education can be observed. Particularly large discrepancies in the family planning practices of women in different educational categories are noted in Colombia, Mexico, Peru, and Jordan. In each of these countries more than 65 percent of the currently married, fecund, nonpregnant women who have had at least some secondary school education currently use a contraceptive method. Women who have never attended school have use rates below 30 percent in Colombia and Jordan and below 20 percent in Mexico and Peru.

Comparing contraceptive prevalence rates by educational level without controlling for differences in the distribution of women by age or number of living children conceals the influence of these factors. Since educational opportunities and school attendance rates in most countries have dramatically risen in recent years, younger women tend to be, on the average, better educated than older women. The number of children a woman has is strongly influenced by variables such as age at marriage which in turn has a direct bearing, at least in some societies, on the extent to which women may pursue a formal education. Panels two and three on Table 4 present current contraceptive use rates by levels of education standardized for age and number of living children. Mexico's age and parity distribution for exposed women is the standard used.

Standardizing the contraceptive use rates by education for age and number of living children tends to accentuate the positive relationship between contraceptive use and education. In general, standardizing by number of living children produces greater differences between education groups than standardizing by age, since parity partially reflects duration of marriage (particularly in high fertility countries) and thus reflects differences in age at marriage. By eliminating the effects of differences

Table 4. Percent of Exposed Women Currently Using Contraception (Including Sterilization) by Education of the Respondent: Selected WFS Countries*

COUNTRY	No Education	Primary	Secondary	Rates Standardized for Age** No Education	Primary	Secondary	Rates Standardized for Number of Living Children** No Education	Primary	Secondary
ASIA AND THE PACIFIC									
Bangladesh	7.4 (3534)	14.2 (883)	27.2 (218)	8.3	18.0	35.6	8.6	17.6	37.6
Fiji	59.2 (682)	55.2 (2197)	56.1 (435)	—[a]	—[a]	—[a]	52.6	57.6	66.2
Indonesia	31.0 (2309)	39.2 (2976)	57.0 (319)	30.3	42.5	59.9	34.5	46.0	68.0
Jordan	27.8 (1530)	47.9 (484)	66.4 (323)	25.3	54.9	69.7	21.4	50.0	71.0
Korea, Rep. of	44.7 (640)	43.4 (2002)	50.1 (1199)	36.6	39.0	47.3	37.7	41.0	56.6
Malaysia	31.3 (1403)	44.8 (2319)	56.9 (541)	—[a]	—[a]	—[a]	—[a]	—[a]	—[a]
Philippines	16.0 (299)	34.2 (1512)	53.8 (4872)	12.1	32.5	52.5	15.8	31.2	53.1
Sri Lanka	28.6 (880)	38.0 (1822)	50.0 (2008)	25.9	36.2	49.4	26.3	38.2	56.2
Thailand	27.0 (577)	38.4 (2303)	45.8 (240)	33.8	40.0	48.0	27.5	38.3	49.5
LATIN AMERICA AND THE CARIBBEAN									
Colombia	27 (451)	52 (1378)	74 (489)	27	53	75	25	52	75
Costa Rica	68.5[b] (445)	79.2 (1192)	82.0 (585)	68.9	79.8	82.6	64.8	77.6	85.7
Dominican Republic	17.0 (112)	37.7 (1242)	62.6 (139)	23.7	39.3	64.2	17.0	38.9	64.3
Guyana	38.0[b] (442)	38.1 (1262)	38.3 (933)	35.1	34.9	42.6	32.6	35.9	45.4
Jamaica	36.5[b] (239)	44.3 (1219)	53.1 (471)	40.1	45.4	55.7	36.4	45.6	58.9
Mexico	19.3 (809)	39.9 (2545)	71.0 (753)	18.6	40.4	70.6	17.3	39.4	73.6
Panama	47.3[c] (501)	65.8 (875)	74.5 (881)	47.2	65.5	74.6	48.4	65.6	73.0
Peru†	16.2 (3417)	40.0 (6940)	68.3 (3484)	15.2	39.7	68.3	19.5	39.1	69.5

*Nepal excluded because 95 percent of the women had no education. Pakistan's first country report did not contain enough information on use rates by education.

**Mexico's sample of exposed women used as the standard. In most cases age groups are <25, 25-34, 35-44, 45-49, and number of living children is categorized as 0, 1, 2, . . . , 5, 6+.

†Peru's percentages are based upon weighted data; the weighted frequencies are given.

[a]Fiji: data not available by age; Malaysia: data not available by age and number of living children.

[b]No Education includes None and Less than Three Years of Primary.

[c]No Education includes Less than Fours Years of Primary; no respondents had No Education.

Sources: WFS First Country Reports, Tables 1.6.3 and 4.4.5 except for Fiji (D17, D19, and H11), Indonesia (2.3.5), and Thailand (1.5.3 and 4.4.2).

in age and parity through standardization, women with no education in Peru have slightly higher use rates than women in Mexico and the Dominican Republic. The small differences in the contraceptive behavior of women with different levels of education in Guyana are more likely to reflect differences in distributions of living children than real variations in levels of contraceptive use.

The WFS findings just reviewed tend to contradict partially the conclusions of a recent United Nations' study.[12] This study concluded that cross-country variations in contraceptive prevalence rates could not be explained by differences in overall educational levels. Differences in contraceptive behavior, the United Nations' study found, were evident between countries among women with roughly similar levels of education. However, WFS results show that contraceptive use rates for women with a secondary education are more consistent across different countries than such a conclusion would suggest. (Note that except for Bangladesh and Guyana all contraceptive use rates shown in Table 4, whether standardized or not, approximate or exceed 50 percent of exposed women.)

In general, a country's overall level of contraceptive use is influenced not only by differences in contraceptive prevalence among women with different educational backgrounds, but also by the proportion of women in each group. For example, despite the fact that women with a secondary education in Jordan have a higher use rate than women with similar educations in Korea, Korea's overall contraceptive use rate is considerably higher. This is because the proportion of women with a secondary education is much lower in Jordan than in Korea, and Korean women exhibit much narrower differences in contraceptive use among all educational levels. Similar patterns can be seen when comparing Jamaica with Mexico or Peru. On the other hand, Guyana, while having one of the lowest use rates of the Latin American-Caribbean countries, has one of the highest use rates for women with no education. Cultural and other variables obviously influence specific country patterns.

Education and Type of Method Used

Better educated women have higher use rates for both traditional and modern methods.[13] These differentials are not shown here, but they suggest that although a woman's level of education is an important determinant of whether she uses contraception, other factors influence her choice of method. These include conditions and personal considerations such as a husband's attitudes and her own opinions about the convenience and reliability of certain methods. It is possible that some contraceptive methods are more frequently used by less educated women. However, the nature of these relationships cannot be ascertained through the tabulations provided in the First Country Reports.

Contraceptive Use by Place of Residence

Many studies in developing countries have shown that women living in urbanized areas are more likely to use contraceptives than those in the countryside. The reasons for this phenomenon have been linked to several factors characteristic of rural populations: a lower awareness of family planning methods, a lack of access to family planning supplies and services, and a desire for large families. Also, the demographic profile of rural populations is usually different from that of towns and cities. Rural residents tend to be somewhat older and have a lower educational attainment than their urban counterparts. In some countries, such as Malaysia and Guyana, major ethnic groups dominate urban or rural populations, adding the effects of religious and cultural differences.

The division into urban and rural categories is not always clearcut and the significance of the distinction is not the same in every country or even within regions of the same country. In some regions, the attitudes and lifestyles of residents of small towns may be closer to those of the rural population than of residents of the capital cities. But generally, urban residents are more likely to practice contraception in part because of their greater exposure to information about contraceptive methods, and their easier access to them through the commercial sector and public and private health services.

The division of residence into two categories, while simplifying the descriptive analysis, masks some of the range of behavior between the capital cities, provincial towns, and the countryside. Table 5 illustrates the prevalence of contraceptive use by several types of residence for selected WFS countries. In most countries, use is highest in the principal cities, somewhat lower in the other urban areas and lowest in rural areas. However, this pattern does not emerge in all countries. In Indonesia, Guyana, and Panama, the difference in use by residence is negligible, while in Mexico, Peru, and Thailand, the expected pattern of increased contraceptive use in urban, and particularly principal urban areas, is evident. This suggests that the dif-

Table 5. Percent Distribution of Exposed Women by Current Use of Contraceptive and Place of Residence: Selected WFS Countries

PLACE OF RESIDENCE	Percent Using Contraceptives	Number of Women
Bangladesh		
Dacca City	37	262
Other Urban	19	755
Rural	9	3417
Indonesia		
Jakarta	39	899
Other Urban	41	963
Rural	36	3904
Guyana		
Georgetown & Suburbs	43	781
Other Urban	31	199
Rural	36	1736
Kenya*		
Metropolitan	24	—
Urban	19	—
Rural	8	—
Mexico		
Mexico City	62	913
Other Urban	53	1501
Rural	20	1693
Panama**		
Metro/Urban	72	994
Other Urban	74	277
Rural	66	986
Thailand		
Bangkok/Thonburi	60	237
Other Urban	57	172
Rural	43	2168

* Women aged 25 to 34 years only.

** Women aged 20 to 49 years only.

—Not available.

Sources: Kenya: *1977/78 Kenya Fertility Survey, Major Highlights*, (WFS), Table 24, p. 58. All Other Countries: Lightbourne, 1980, Table 28, pp. 64-65.

ference in use of family planning by type of residence is not a sharp one; rather it varies according to the size and type of rural and urban areas and perhaps according to the size of the country and prevailing patterns of population distribution.

Prevalence rates by urban/rural residence are shown in Figure 9 for the 20 countries. Because rural residents are, on the average, older than urban residents, and contraceptive use varies by age, these rates were adjusted by WFS to remove the effects of the difference in age distribution.[14]

In each of the countries, the urban rates are equal to or higher than the rural rates. The magnitude of the differential varies from near zero in Indonesia, Korea, and Costa Rica to a seven-fold difference in Nepal. In general, as shown in Table 6, the ratio of urban to rural contraceptive use is highest in countries with extremely low prevalence, as for example, in Nepal, where only four out of every 100 exposed women currently use contraception. This could be partially explained by the recentness of the introduction of modern family planning methods, which are likely to be first available to urban women.

In developed countries, where contraceptive use has long been acceptable and where the strong communications and commercial sectors have helped to homogenize the urban and rural populations, there is little difference in contraceptive use by type of residence. Likewise, in three of the four WFS countries with prevalence rates over 50 percent, the ratio of urban to rural use was small, 1.29 or less.

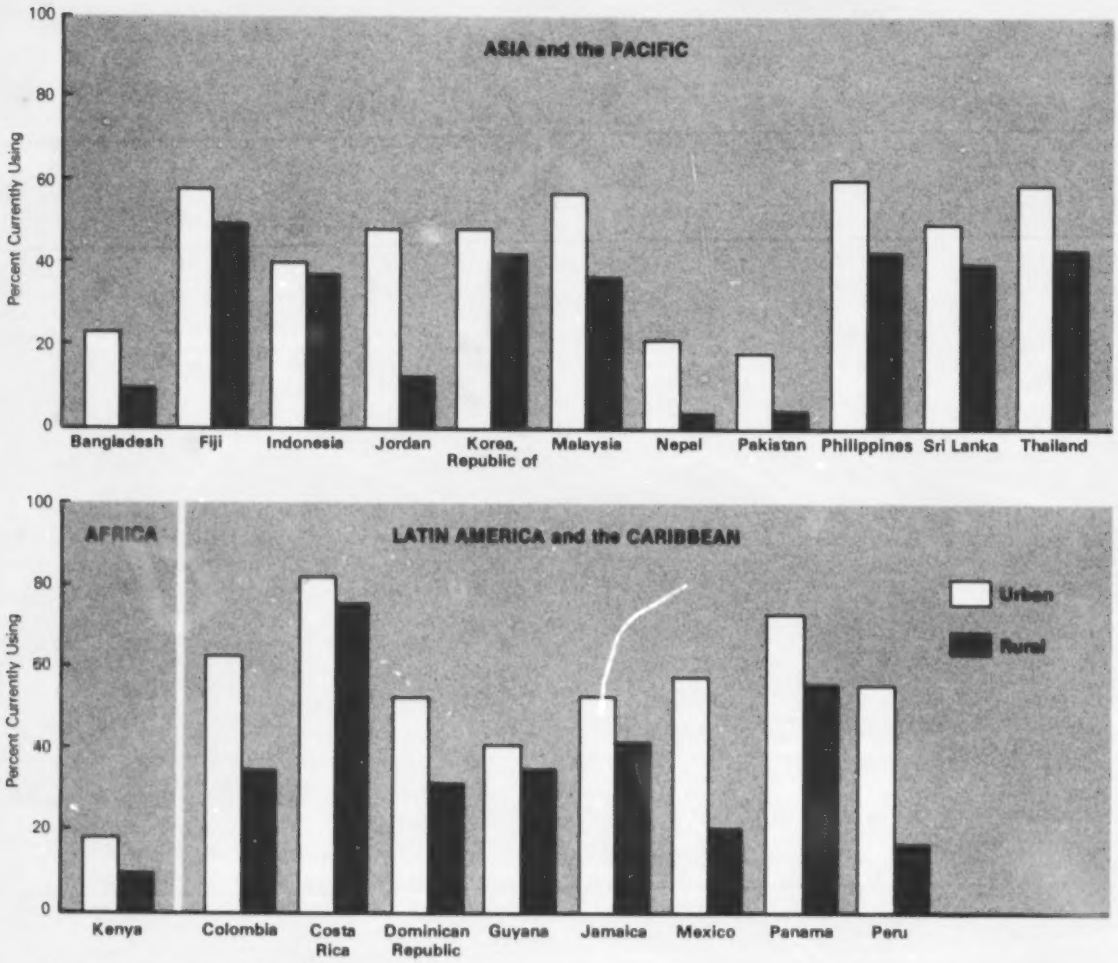
For the majority of countries, those with use rates between 30 and 50 percent, the ratio of urban to rural contraceptive use ranged widely, from 1.08 for Indonesia to 3.70 for Jordan. This variation most likely reflects a combination of the diversity of cultural attitudes toward family planning and differences in the availability of methods within countries. The average ratio of urban to rural contraceptive use was somewhat higher in the Asian and Pacific countries than among the Latin American and Caribbean countries, 2.50 and 1.78, respectively. In taking the 20 countries together, urban contraceptive use was slightly more than twice that of rural use.

Place of Residence and Type of Method Used

Because use of modern contraceptives is limited by their availability in some areas, it is worthwhile to examine differences in the use of efficient methods which are supply or clinic-dependent, and inefficient (traditional) methods. The use of traditional methods is not higher in the rural areas except in Panama, where urban reliance on withdrawal, rhythm, and similar methods is only two-thirds what it is in the rural areas. In eight of the countries, the use of inefficient methods follows essentially the same pattern by residence as modern methods.

In Indonesia and the Republic of Korea, where community-based family planning programs have been successful in reaching the countryside, the use of modern practices is at least as common in rural areas as in the towns and cities. Indeed, in Indonesia, urban women are only 88 percent as likely

Figure 9. Percent of Exposed Women Currently Using Contraception by Urban/ Rural Residence: WFS Countries



Source: Appendix Table A.7

*Table 6. Percent of Exposed Women Currently Using Efficient and Inefficient Contraceptive Methods by Urban/Rural Residence: WFS Countries**

COUNTRY	EFFICIENT METHODS** Use Rate Urban	Use Rate Rural	Ratio U/R	INEFFICIENT METHODS** Use Rate Urban	Use Rate Rural	Ratio U/R
ASIA AND THE PACIFIC						
Bangladesh	22	6	3.67	5	4	1.25
Fiji	50	42	1.19	8	7	1.14
Indonesia	30	34	0.88	11	4	2.75
Jordan	33	9	3.67	15	4	3.75
Korea, Rep. of	7	30	1.10	11	33	1.57
Malaysia	41	26	1.58	15	10	1.50
Nepal	22	3	7.33	0	0	0.00
Pakistan	14	3	4.67	5	1	5.00
Philippines	31	16	1.94	28	25	1.12
Sri Lanka	29	23	1.26	18	15	1.20
Thailand	55	40	1.37	5	4	1.25
Regional Average			2.60			1.87
LATIN AMERICA AND THE CARIBBEAN						
Colombia	47	23	2.04	16	13	1.23
Costa Rica	68	63	1.09	13	13	1.00
Dominican Republic	46	26	1.77	8	7	1.14
Guyana	30	31	0.97	12	7	1.71
Jamaica	50	41	1.22	3	3	1.00
Mexico	45	14	3.21	12	7	1.71
Panama	64	44	1.45	8	12	0.67
Peru	21	3	7.00	34	13	2.62
Regional Average			2.34			1.38
Overall Average			2.45			1.66

*Not available for Kenya. The percentages were standardized for age using the age distribution of the Fiji respondent.

**Contraceptive methods are grouped into two types: *efficient* (male and female sterilization, pill, IUD, injection, condom, and "other female scientific") and *inefficient* (withdrawal, rhythm, douche, country-specific methods, and "method not stated").

Source: Lightbourne, 1980, Table 28, pp. 64-65.

to rely on efficient methods as are rural women. They are 2.75 times more likely to use inefficient methods.

In six countries, the difference in urban/rural contraceptive use is largely due to greater access to modern contraceptives among urban women. The difference in use of inefficient methods is modest by comparison. For all countries, the urban use of inefficient methods is only two-thirds higher than in rural areas, while the use of efficient methods is, on the average, 1.5 times higher.

Contraceptive Use by Women's Employment Status

Current contraceptive use data are available by women's employment status for six of the published reports. The relationship between paid employment and fertility-related behavior is of interest in developing countries because industrialization often brings more women into certain sectors of the work force and this may exert a potential downward influence on fertility levels.

Table 7. Percent of Exposed Women Currently Using Contraception by Employment Status: Selected WFS Countries

COUNTRY	Percent Using Contraception		Ratio Working/Non-working	
	Observed Rate	Standardized* Rate	Observed Rate	Standardized Rate
Costa Rica				
Working	8[illegible].2	79.6		
Non-working	7[illegible].8	74.6	1.06	1.07
Jordan				
Working	39.0	41.7		
Non-working	36.9	38.8	1.06	1.08
Korea, Rep. of				
Working	46.9	42.5		
Non-working	44.7	43.8	1.05	0.97
Panama**				
Working	71.6	72.4		
Non-working	62.2	61.8	1.15	1.17
Peru				
Working	36.6	36.6		
Non-working	45.3	45.6	0.81	0.80
Philippines				
Working	51.6	51.1		
Non-working	44.7	44.7	1.16	1.14

*Adjusted for current age and number of living children using the Philippines as the standard population.
**Women aged 20-49 years only. Women aged 15-19 years not interviewed.
Source: WFS First Country Reports, Table 4.4.5.

The definition of labor force participation is problematic in most developing countries because of the existence of a large informal sector of the economy. The female labor force is even more difficult to define because of cultural differences in whether work usually performed by women is considered "employment," and also, in the social acceptability of the idea of women working outside the home. The WFS data on the respondents' pattern of employment must be examined realizing that they reflect these cultural interpretations and biases.

While the relationship between the level of fertility and employment is usually negative, the nature of that relationship has not been well defined. For example, it is not clear whether working women have fewer children because they prefer to work or whether the fact that they have fewer children makes it easier to have a job.

Because contraception is the primary means to control fertility, the existence of a relationship between contraceptive use and employment status is not surprising. In the United States in 1976, women in the labor force were slightly more likely to be using contraceptives than other women, 69.9 to 65.9 percent, respectively.[15] The KAP surveys in the 1960s and early 1970s also showed that working women were somewhat more likely to be practicing contraception.[16] In the six WFS countries included here, the results are mixed, both before and after adjusting for age and the number of living children (see Table 7). In Costa Rica, Jordan, and Korea the difference in contraceptive use between working and non-working women is negligible. In the Philippines and Panama, use among working women is 14 and 17 percent higher, respectively, than among non-working women. In Peru, women who are employed use contraception at a rate of 20 pecent lower than non-working women.

In these six countries, employment status is not directly associated with contraceptive use levels. Because the labor force is comprised of women from different education, economic, and residence categories in different countries, it is difficult to separate the effects of these other factors from that of employment. In a recent United Nations' study, researchers concluded that education accounted for most of the difference in contraceptive use by employment status in the WFS countries.[17]

Summary and Implications

The data reviewed in this report provide evidence of the rapidity with which knowledge and use of modern contraceptives have spread through many regions of the developing world. In less than four decades since the end of the second World War in 1945 and indeed in the less than two decades since the introduction of family planning programs in developing countries—awareness and use of modern contraceptive methods have risen from near insignificance to levels that in some countries approach those observed in the developed world. This is a remarkable occurrence since these methods, the result of recent scientific and technological breakthroughs, only began to be widely diffused in the developed countries since the 1960s. An emerging world-wide concern with the detrimental consequences of rapid population growth, growing concern about the impact of high fertility on maternal and child health, modernization induced by social and economic development, and increased international cooperation are the main factors that account for the accelerated adoption of the new technologically innovative contraceptive methods in the developing countries.

According to the data collected in 19 of the 20 national fertility surveys reviewed in this report, three-quarters or more of the ever-married women know about contraception. Nepal is the exception. Knowledge of modern contraceptive methods is more common than knowledge of traditional methods. Depending on which country is considered, among modern methods the oral contraceptive is best known, followed by the IUD and sterilization. In many countries, these methods are as well known in rural as urban areas, and equally recognized by women of widely varied educational backgrounds.

Levels of ever-use and current use of contraception tend to be positively associated: the higher the level of ever-use the higher the current level of use. Current use levels among currently exposed women exhibit a wide range of variability. Nepal, not surprisingly, is the country with the lowest percentage of exposed women practicing contraception—only three percent are current users. The highest levels were recorded in Costa Rica (78 percent) and Panama (65 percent). In all but four of the 20 countries, 37 percent or more of exposed women were contraceptive users. No regional patterns of current use are evident since there is considerable overlap among the major regions, although Latin American and Caribbean countries overall tend to have higher levels. Countries in South Asia and Kenya—the only African country included in this review—have the lowest levels of current use. One exception to this generalization is Sri Lanka.

Current users of contraception generally rely on modern methods. The method most frequently used in a majority of countries is the pill, followed by the IUD and sterilization. In Indonesia over half of all current users depend on the pill. The only country exceeding this reliance on a single method is Nepal, which has a higher prevalence of sterilization among the few Nepalese users. Traditional methods are practiced by a majority of current users in only two countries, the Philippines and Peru. In the Philippines, 50 percent of current users, almost equally divided, depend on rhythm and withdrawal. In Peru rhythm is the most popular traditional method followed by douche, withdrawal, and abstinence.

The extent of current use is related to age of women in a curvilinear fashion. The percentage of current users is lower among younger and older women and reaches its highest level in the mid-range of the childbearing years. A strong relationship between parity and contraceptive use can be observed. Contraceptive use tends to increase with number of living children although the relationship is not always consistent. The most noticeable increase in levels of contraceptive use occurs between the second and third child, and rises less at higher parities. Some of the noted age and parity patterns are a result of higher educational levels among younger women who presumably hold more modern attitudes. These differences may make the young cohorts of women more predisposed to use contraceptives in order to limit their births.

Educational levels and contraceptive use are related in a very straightforward manner: as one increases so does the other. Similarly, women in paid employment practice contraception somewhat more than non-working women. The evidence reviewed in this report generally substantiates what other studies have found. That is, contraceptive use tends to rise among better educated and employed women. The relationship between employment and contraceptive use is not clear, however. Women with smaller families may more readily join the labor force than women who do not limit their family size. The alternative view is that many women use contraceptives in order to enter or remain in the work force.

Finally, contraceptive behavior is somewhat more prevalent among urban than rural women. The prevalence of contraception, however, does not change abruptly from one type of location to another, but rather seems to involve a gradient that is itself related to the characteristics that define the

transition from rural to urban. In the more highly urbanized areas, women generally have more ready access to supplies of modern contraceptives.

In conclusion, the WFS data analyzed here strongly suggest that knowledge and use of contraception have been on the rise and should continue to increase in developing countries in years to come. The combined impact of socioeconomic development and organized family planning programs are putting more and more couples within reach of the means to achieve their desired family size. This by itself is an indication of social change on the broadest scale, since only a generation ago such control over a family's destiny was not thought possible or even feasible among people who today practice contraception routinely.

Appendix Table A-1. Selected Demographic, Social, and Economic Characteristics for Countries in the WFS: 1974-78

	Year of WFS Survey	Population Estimate[a,aa] Mid-1976 (Millions)	Surface Area (1000 km²)[bb]	Birth Rate[b,aa]	Death Rate[b,aa]	Rate of Population Growth[c,aa] (Annual, Percent)	Infant Mortality Rate[d,aa]	Population Under 15 Years[aa] (Percent)	Life Expectancy at Birth[aa] (Years)	Percent Women in Union,[gg] Age 15-19	Urban Population (Percent)[i,aa]	Labor Force in Agriculture[p,cc] (Percent)	Per Capita Gross National[g,aa] Product (U.S. $)	Physical Quality of Life[g,h,dd] Index	Adult Literacy Rate[i,bb,cc] (Total)	(Female)	(Male)	Population per Physician[p,cc]	Population Having Access[p,cc] to Safe Water (Percent)	Government Position on[i,ff] Family Planning	Percent Married Women[gg] Using Contraception, Age 15-49
AFRICA																					
KENYA	1977	13.8	583	48	15	3.3	119	46	50	33	10	79	240	39	40	–	–	8,840	17	OP-DMR	7
ASIA																					
BANGLADESH	1975	76.1	144	47	20	2.7	153	43	46	64.8[gg]	9	78	110	32	22[cc]	20	44	11,350	53	OP-DMR	8
FIJI	1974	.6	18	29	7	2.2	41	39	70	12.0	38	44	1,150	79	75[cc]	77	85	2,300	69	OP-DMR	40
INDONESIA	1976	134.7	2,027[k]	38	14	2.4	137	44	48	31.0[m]	18	60	240	48	72[m]	59	87	16,430	12	OP-DMR	26[m]
JORDAN	1976	2.8	98	48	13	3.4	97	48	53	28.0	42	28	610	47	70	–	–	2,250	56	NOP-FPAV	22[q]
KOREA, (REP.)	1974	34.8	98	24	7	1.7	47	39	65	3.2	48	45	670	82	88	81	94	1,600	62	OP-DMR	35
MALAYSIA	1974	12.4	330	31	6	2.5	41	43	68	11.3[n]	27	44	860	73	75	58	86	4,350	62	OP-DMR	33[m]
NEPAL	1976	12.9	141	44	20	2.3	152	40	44	61.5	4	93	120	27	13	3	22	38,650	9	OP-DMR	2
PAKISTAN	1976	72.5	804[l]	44	14	3.0	139	46	51	38.0	26	58	170	36	20[cc]	12	43	3,850	29	OP-DMR	5
PHILIPPINES	1978	44.0	300	35	10	2.5	80	43	58	11.0	32	51	410	71	87[o]	–	–	3,150	39	OP-DMR	37
SRI LANKA	1975	14.0	66	26	9	1.7	47	39	68	6.5	22	54	200	82	76[o]	64	88	6,230	20	OP-DMR	32
THAILAND	1977	43.3	514	33	10	2.3	89	45	61	14.4[o]	13	77	380	71	79[o]	70	87	6,370	22	OP-DMR	33
LATIN AMERICA																					
COLOMBIA	1976	23.0	1,140	33	9	2.4	90	44	61	14	64	31	630	72	73	71	75	1,820	64	OP-DMR	42
COSTA RICA	1976	2.0	51	29	5	2.4	38	44	68	13	41	30	1,040	85	84[o]	84	85	1,550	77	OP-DMR	64
DOMINICAN REP.	1976	4.8	49	39	9	3.0	96	48	55	20	47	58	780	64	66	65	68	1,870	55	OP-DMR	31
GUYANA	1975	.8	215	27	7	2.0	50	44	68	25	40	31	540	84	86[cc]	86	86	3,270	–	NOP-FPAV	31
JAMAICA	1975-76	2.1	11	30	7	2.3	20	46	68	23	41	24	1,070	85	87[cc]	87	87	3,510	86	OP-DMR	39
MEXICO	1978	62.3	1,973	42	8	3.4	66	46	65	18	64	34	1,090	75	74[o]	70	78	1,840[hh]	62	OP-DMR	30
PANAMA	1977	1.7	76	32	7	2.6	47	43	66	17	50	30	1,310	79	78	78	79	1,270	79	OP-DMR	54
PERU	1977-78	16.0	1,285	40	11	2.9	80	45	56	16	55	40	800	65	72[cc]	67	90	1,580	47	NOP-FPAV	31

NA = not available

a Based on most recent official country or U.N. estimate: mid-1974 estimate for most countries. Each estimate was updated to mid-1976 by applying the same rate of growth as indicated by population change during part or all of the period since 1970.

b Rates refer to 1976 and were obtained by interpolating the 1970-1975 and 1975-1980 estimates of the U.N. to 1976. The 1970-1975 and 1975-1980 rates were used in the medium variant estimates and projections as assessed by the U.N. in 1973 (U.N., *Selected World Demographic Indicators By Countries, 1950-2000).* The interpolated figures should be considered as rough approximations only.

c Birth rate minus the death rate. Since the rates were based on unrounded birth and death rates, some rates do not exactly equal the difference between the birth and death rates shown because of rounding.

d Annual number of deaths to infants under one year of age per 1,000 births.

e The percentage of women currently 15-19 years of age currently in union (as defined by each country), excluding those currently married but separated.

f The percentage of the total population living in areas defined as urban by each country.

g Data refer to either 1975 or 1976.

h Based on an average of life expectancy at age one, infant mortality, and literacy rates.

i Adult literacy is defined by source bb and cc as the percentage of those 15 or more years of age who are able to read and write. The following exceptions hold:
Source bb: Indonesia and Malaysia, 10 or more years of age.
Data from source bb and cc refer to 1970. The following exceptions hold:
Source bb: Indonesia and Nepal, 1971; Colombia, 1964; Sri Lanka and Costa Rica, 1963.
Source cc: Bangladesh and Peru, most recent estimate.
Data are from source bb unless otherwise indicated.

j The codes used to signify the government position on family planning are as follows:
OP-DMR: Official policy to reduce population growth for demographic reasons; support family planning to implement this policy.
NOP-FPAV: No official policy or statement on family planning or stated policy of non-intervention, services freely available from government centers or private clinics.

k Indonesia—including West Irian.

l Pakistan—excluding Jammu, Kashmir, Junagardh, Manavadar, Gilgit, and Baltisan.

m Indonesia—Java & Bali only.

n Malaysia—includes Peninsular Malaysia only.

o Excluding estimated adjustments for underenumeration.

q Jordan—East Bank only.

SOURCES:

aa Population Reference Bureau, *World Population Data Sheet: 1976; 1978.*

bb United Nations, *Demographic Yearbook,* 1976, T.3 and T.41; *1973,* T.33; *1971,* T.1B.

cc World Bank, *World Tables 1980: Social Indicators,* T.3 and T.5.

dd Overseas Development Council. *The United States and World Development: Agenda 1979.* T.A-4.

ff Population Reference Bureau, *Family Planning and Marriage Data Sheet: 1970-1980.*

gg WFS First Country Reports, Various Tables.

hh WHO *World Health Statistics Annual, 1978,* Vol. III, T.2.1.

Appendix Table A-2. Percent of Ever-married Women* Who Have Heard of Contraceptive Methods: WFS Countries

COUNTRY	Any Method	Any Modern[a] Method	Any Traditional[a] Method
AFRICA			
Kenya[b]	88	84	—
ASIA AND THE PACIFIC			
Bangladesh	82	80	49
Fiji	100	100	87
Indonesia	77	75	34
Jordan	97	97	81
Korea, Rep. of	97	97	68
Malaysia	92	90	61
Nepal	23	22	6
Pakistan	75	75	4
Philippines	94	94	79
Sri Lanka	91	90	56
Thailand	97	96	55
LATIN AMERICA AND THE CARIBBEAN			
Colombia	96	95	74
Costa Rica[c]	100	100	91
Dominican Republic	98	98	75
Guyana	95	95	71
Jamaica	98	98	78
Mexico	90	89	63
Panama[c]	99	98	86
Peru	82	78	69

*Unless otherwise indicated, based on women aged under 50 or 15-49 ever-married or in a union. Data taken from M. Vaessen, "Knowledge of Contraceptive Methods," *WFS Comparative Studies*, No. 8 (May 1980), Table 1, p. 16, and standard recode data tapes.

[a]Modern methods include sterilization, pill, injection, IUD, condom, and female vaginal methods (diaphragm, foam, other spermicides). Other methods are counted as traditional.

[b]Based on all women 15-50.

[c]Based on ages 20-49.

—Not available.

Source: United Nations, no date, Table 1, pp. 6-7.

Appendix Table A-3. Levels of Knowledge, Ever Use, and Current Use of Contraception Among Currently Married Women and Exposed Women: WFS Countries

COUNTRY	CURRENTLY MARRIED WOMEN[a] Number	Know a Method (1)	Percent Used a Method (2)	Currently Using (3)	Ratio of (3) to (2)	EXPOSED WOMEN[a] Number	Percent Using
AFRICA							
Kenya	—	—	—	—		4217	9
ASIA AND THE PACIFIC							
Bangladesh	5762	83	15	8	53	4645	10
Fiji	4658[c]	100[b]	69	40	57	3314	52
Indonesia	7880	80	38	26	68	5638	37
Jordan	3458	97	46	25	54	2337	37
Korea, Rep. of	5062	98	59	35	59	3866	46
Malaysia	5811[c]	92[b]	50	33	66	4487	42
Nepal	5502[c]	22[b]	4	2	50	4325	3
Pakistan	4667	75	10	5	50	3334	7
Philippines	8866[c]	94[b]	58	36	62	6684	48
Sri Lanka	6159	92	45	32	71	4709	41
Thailand	3517	97	48	33	68	2569	45
LATIN AMERICA AND THE CARIBBEAN							
Colombia	2827	96	62	43	69	2323	52
Costa Rica	2699[cd]	100[b]	84	64	76	2222	78
Dominican Republic	1842[c]	97[b]	49	31	63	1378	41
Guyana	3216	96	55	32	58	2735	38
Jamaica	2302[c]	98	66	38	58	1939	45
Mexico	5659[c]	90	47	30	64	4107	42
Panama	2723[d]	99	75	54	72	2257	65
Peru	5060	82	50	31	62	3853	41

[a]For currently married women, percentages have been calculated based on women currently married or in a union, aged 15-49 years unless otherwise specified. For exposed women, percentages have been calculated based on women aged under 50 years married or in a union, excluding those who are currently pregnant or infecund (but including those sterilized for contraceptive purposes), unless otherwise specified.

[b]Percentage has been calculated on the basis of ever-married women.

[c]Includes currently pregnant women who are not currently married, if any.

[d]For age group 20-49.

—Not available.

Source: United Nations, no date, Table 5, pp. 15-21. (Unless otherwise stated, data taken from the World Fertility Survey First Country Reports and/or standard recode data tapes.)

Appendix Table A-4. Percent of Exposed Women Currently Using Contraception by Age of Woman: WFS Countries

COUNTRY	Total Unstandardized	Total Standardized[a]	Age of Woman <20	20-24	25-29	30-34	35-39	40-44	45+
AFRICA									
Kenya	9	10	3	7	8	13	9	13	12
ASIA AND THE PACIFIC									
Bangladesh	10	11	4	9	9	14	17	11	8
Fiji	52	52	29	42	49	57	59	62	59
Indonesia	37	38	16	33	40	43	42	43	36
Jordan	37	38	13	25	37	44	46	48	41
Korea, Rep. of	46	41	18	19	36	51	60	52	45
Malaysia	42	42	21	37	48	46	43	43	34
Nepal	3	3	0	1	2	5	6	4	5
Pakistan	7	9	0	3	7	9	13	11	17
Philippines	48	46	23	40	49	52	54	48	40
Sri Lanka	41	40	16	26	37	49	48	48	42
Thailand	45	45	23	39	48	52	50	46	40
LATIN AMERICA AND THE CARIBBEAN									
Colombia	52	52	38	52	56	65	53	45	31
Costa Rica	79[b]	78[c]	—	77	79	82	80	77	64
Dominican Republic	42	42	20	37	51	51	45	35	27
Guyana	38	39	24	32	40	48	44	39	32
Jamaica	45	46	37	45	49	57	48	38	32
Mexico	42	41	21	36	48	46	46	39	33
Panama	65[b]	65[c]	—	56	70	66	67	64	65
Peru	41	41	24	38	46	50	42	39	31
Unweighted Average			18	33	40	45	44	40	35

[a]Standardized on the age distribution of exposed women in Colombia.

[b]Ages 20-49.

[c]Standardized on the age distribution of Colombian exposed women, aged 20-49.

—Not available.

Source: United Nations, no date, Table 7a, p. 38. (Unless otherwise stated, data taken from WFS First Country Reports and standard recode data tapes.)

Appendix Table A-5. Percent of Exposed Women Using Specific Contraceptive Methods by Age of Respondent: Selected WFS Countries

COUNTRY AND METHOD	Age of Woman <25	25-34	35-44	45-49
ASIA AND THE PACIFIC				
Fiji				
Pill	12.1	13.9	10.2	6.1
IUD	4.9	6.1	10.2	8.2
Condom	—	—	—	—
Traditional*	8.1	7.4	6.3	2.0
Sterilization**	0.9	12.5	21.6	32.7
All Methods†	29.5	53.1	52.1	53.1
Korea, Rep. of				
Pill	7.6	10.6	13.1	5.8
IUD	3.5	9.8	13.4	11.6
Condom	3.0	8.1	6.6	2.6
Traditional	4.4	9.3	12.9	5.1
Sterilization	0.2	4.6	9.8	20.0
All Methods	18.7	43.5	57.0	45.2
Thailand				
Pill	18.9	22.7	15.2	7.2
IUD	6.8	9.2	8.2	4.8
Condom	0.7	0.5	0.8	0.0
Traditional	4.0	3.7	3.9	8.8
Sterilization	2.3	11.0	17.3	19.2
All Methods	35.2	49.1	48.5	41.6
LATIN AMERICA AND THE CARIBBEAN				
Guyana				
Pill	12.6	15.5	5.9	0.9
IUD	5.6	10.0	4.5	3.7
Condom	4.0	3.1	4.3	0.9
Traditional	4.5	3.4	3.2	5.1
Sterilization	0.3	8.5	21.0	20.0
All Methods	29.3	43.6	41.8	32.1
Mexico				
Pill	16.2	17.4	11.2	7.4
IUD	5.2	10.3	7.5	1.6
Condom	0.3	1.3	1.2	2.1
Traditional	6.3	9.9	12.6	9.5
Sterilization	0.6	3.1	7.5	9.5
All Methods	31.7	47.3	43.6	32.7
Panama	(20-29)	(30-39)	(40-49)	
Pill	33.0	16.2	5.7	
IUD	5.3	4.8	2.4	
Condom	1.8	1.5	1.0	
Traditional	2.8	2.8	3.0	
Sterilization	9.7	30.7	43.6	
All Methods	63.8	66.7	64.5	

*Includes rhythm, withdrawal, abstinence, douche, and other.

**Includes both male and female.

†Includes all of the modern (pill, injection, IUD, condom, diaphragm, foam, jelly, suppositories, and sterilization) as well as all of the traditional methods.

—Not available.

Source: WFS First Country Reports, Table 4.4.1 except Fiji (H7).

Appendix Table A-6. Percent of Exposed Women Currently Using Contraception by Number of Living Children: WFS Countries

COUNTRY	Total Unstandardized	Total Standardized[a]	Number of Living Children 0	1	2	3	4	5	6	7+
AFRICA										
Kenya	9	8	2	4	8	10	10	13	12	15
ASIA AND THE PACIFIC										
Bangladesh	10	10	3	7	8	11	12	13	15	16
Fiji	56	51	10	39	52	56	66	69	72	75
Indonesia	37	36	4	27	40	46	43	48	51	54
Jordan	37	32	7	27	37	36	36	43	45	43
Korea, Rep. of	45	39	16	17	47	54	57	54	49	37
Malaysia	42	38	10	37	43	45	47	45	45	46
Nepal	3	4	0	1	2	3	5	9	9	11
Pakistan	7	7	0	2	4	7	9	12	14	16
Philippines	48	42	6	36	49	55	54	52	51	48
Sri Lanka	41	38	4	26	41	48	53	53	55	47
Thailand	45	42	10	38	47	53	58	52	45	43
LATIN AMERICA AND THE CARIBBEAN										
Colombia	52	49	24	50	60	57	59	56	47	45
Costa Rica	78	73	39	75	82	83	80	82	78	76
Dominican Republic[b]	42	39	15	30	44	51	50	57	41	41
Guyana	38	36	22	26	37	39	38	46	49	47
Jamaica	45	45	32	34	50	45	52	57	55	51
Mexico	42	39	13	38	49	47	46	41	43	39
Panama	65	61	31	58	70	73	71	67	69	58
Peru	41	38	16	36	49	48	43	38	39	36
Unweighted Average			13	30	41	43	44	45	44	42

[a]Standardized on the distribution of exposed Bangladeshi women by number of living children.

[b]The percentage using differs slightly from that shown in other tables because of small discrepancies in the source tables and because of rounding errors.

Source: United Nations, no date, Table 9, p. 45. (Unless otherwise stated, data taken from WFS First Country Reports and standard recode data tapes.)

Appendix Table A-7. Percent of Exposed Women Currently Using Contraception Urban/Rural Residence: WFS Countries

COUNTRY	RESIDENCE					
	Urban			Rural		
	Effi-cient	Ineffi-cient	Total	Effi-cient	Ineffi-cient	Total
AFRICA						
Kenya*	—	—	18	—	—	9
ASIA AND THE PACIFIC						
Bangladesh	19	4	23	5	4	9
Fiji	50	8	58	42	7	49
Indonesia	29	11	40	33	4	37
Jordan	33	15	48	8	4	12
Korea, Rep. of	36	12	48	34	8	42
Malaysia	41	16	57	26	10	36
Nepal	21	0	21	3	0	3
Pakistan	13	5	18	3	1	4
Philippines	32	28	60	16	26	42
Sri Lanka	30	19	49	23	16	39
Thailand	54	5	59	39	4	43
LATIN AMERICA AND THE CARIBBEAN						
Colombia	46	16	62	21	13	34
Costa Rica**	68	13	81	62	13	75
Dominican Republic	44	8	52	24	7	31
Guyana	28	12	40	29	6	35
Jamaica	49	3	52	39	2	41
Mexico	45	12	57	13	7	20
Panama**	64	8	72	44	11	55
Peru	21	34	55	3	13	16

*Base population excludes women practicing post-partum and terminal abstinence.
**Women aged 20-49 years. Women aged 15-19 years not interviewed.
—Not available.
Sources: Kenya: United Nations, no date, Table 17, pp. 85-87. All Other Countries: Lightbourne, 1980, Table 28, pp. 64-65.

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1 The classic outline of the intermediate variables was provided by Kingsley Davis and Judith Blake in "Social Structure and Fertility: An Analytic Framework," *Economic Development and Cultural Change*, 4, No. 4 (July 1956) pp. 211-235; see also John Bongaarts. "A Framework for Analyzing the Proximate Determinants of Fertility," *Population and Development Review*, 4, No. 1 (March 1978) pp. 105-132.

2 The first report in this series surveys how marriage patterns may affect fertility. Jane S. Durch, "Nuptiality Patterns in Developing Countries: Implications for Fertility," *Reports on the World Fertility Survey*, No. 1 (Washington, D.C.: Population Reference Bureau, December 1980).

3 The second report in this series review these issues. Mary Mederios Kent, "Breast-feeding in the Developing World: Current Patterns and Implications for Future Trends," *Reports on the World Fertility Survey*, No. 2 (Washington, D.C.: Population Reference Bureau, June 1981).

4 An important data source on abortion is Christopher Tietze. *Induced Abortion: A World Review, 1981* (Fourth Edition) (New York, NY: The Population Council, 1981)

5 Durch, Jane. "Nuptiality," pp. 5-8; Mary Mederios Kent. "Breast-feeding," pp. 8-10.

6 Leridon, Henry. *Human Fertility—the Basic Components* (Chicago, Il: University of Chicago Press, 1977) p. 125.

7 Fiji did not use the spontaneous approach, but rather used the probing approach directly. The Fijian questionnaire excluded mention of the douche. In Pakistan only the open, spontaneous question was used so that the data from this country are not strictly comparable with that of other countries. In addition, other countries excluded the following contraceptives from their probes: Bangladesh (injection), Jordan (injection), Malaysia (douche), Nepal (other female modern, injection, douche, rhythm, and withdrawal), Philippines (injection), Dominican Republic (abstinence), and Mexico (abstinence). It is likely that knowledge of the omitted methods, at least in some countries, may have been reported under the probe regarding knowledge of the residual category "other" methods.

8 These findings are influenced to some extent by the disproportionate effect of small percentage changes at low levels of ever and current use, as compared to the estimated effect of similar percentage changes at much higher use levels.

9 The very high estimate of current use of sterilization in Nepal is in all likelihood partly a statistical artifact produced by not probing for certain methods.

10 Limitations arising from sample sizes restrict the analysis of age patterns of use for specific methods to only those contraceptives which are most commonly used. For a more detailed discussion of age patterns of use for specific methods made on the basis of median age of users see Ann Larson, *Patterns of Contraceptive Use Around the World* (Washington, D.C.: Population Reference Bureau, July 1981) pp. 12-14.

11 The distinction between primary and secondary follow the country's definition of the number of years required to complete primary schooling. The range is surprisingly large: from four years in Thailand and Pakistan to ten years in Nepal. Caution should also be used in interpreting the estimates by educational level since dropout rates from primary school are known to be high. In thirteen of the countries at least two-thirds of the women who ever attended primary school failed to complete it. Women with less than four years of education in Jamaica, Guyana, and Panama and less than three years in Costa Rica were included in the tabulations from which the rates were derived in the no education group. Information on countries' definitions of educational levels and on the distribution of women by years of schooling were obtained from Susheela Singh, "Background Characteristics Used in WFS Surveys," *Comparative Studies*, No. 4 (London, England: World Fertility Survey, 1980).

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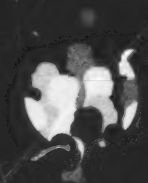

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